COUNTY OF
1781 1781
GREENSVILLE
VIRGINIA
Growing Towards New Horizons

THE GREENSVILLE COUNTY WATER AND SEWER AUTHORITY

March 29, 2013

Ms Tamira Cohen, Ph D
Environmental Specialist, Sr
VDEQ
Piedmont Regional Office
4949A Cox Road
Glen Allen, Virginia 23060

Re VPDES Permit No VA0028916, Greensville County-Skippers WWTF
Permit Renewal application

Dear Ms Cohen

Please find included one original and one copy of EPA Forms 1, 2A, the VPDES Permit Application Addendum, the DEQ Sewage Sludge Permit Application, Water Quality Criteria Monitoring from and the Authorization to Bill Applicant for Public Notice form

If additional information is needed please contact me at 434-348-4245 or Chip Brown at 434-634-6094

Thank You

James Warf
Superintendent of Public Utilities
Greensville County Water and Sewer Authority

O & L,

AUTHORIZATION TO BILL APPLICANT FOR A PUBLIC NOTICE

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below The public notice will be published once a week for two consecutive weeks in the

Independent-Messenger

Agent/Department to be billed Greensville County Water and Sewer Authority

Applicant's Address 1781 Greensville County Circle

Emporia, Va 23847

Agent's Telephone No 434-348-4213

Authorizing Agent _____
Signature

Facility Name Greensville – Skippers WWTF
Permit No VA0028916
Attn Tamira Cohen

ATTENTION PERMITTEE PLEASE COMPLETE THIS FORM AND RETURN IT WITHIN 14 DAYS TO

Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Rd
Glen Allen, VA 23060-6295

O R G,

Please print or type in the unshaded areas only

Form Approved OMB No 2040-0086

FORM 1 GENERAL

EPA

U S ENVIRONMENTAL PROTECTION AGENCY
GENERAL INFORMATION
Consolidated Permits Program

I EPA I D NUMBER: S F VA0028916 T/A C D

VA0028916
Greensville County – Skippers WWTF
1781 Greensville County Circle
Emporia, Va 23847
1208 Moores Ferry Road

Piedmont Regional Office
APR 01 2013
RECEIVED

LABEL ITEMS	
I	EPA I D NUMBER
III	FACILITY NAME
V	FACILITY MAILING ADDRESS
VI	FACILITY LOCATION

GENERAL INSTRUCTIONS
If a preprinted label has been provided affix it in the designated space Review the information carefully if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below Also if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)* please provide it in the proper fill-in area(s) below If the label is complete and correct, you need not complete Items I III V and VI *(except VI-B which must be completed regardless)* Complete all items if no label has been provided Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected

II POLLUTANT CHARACTERISTICS

INSTRUCTIONS Complete A through J to determine whether you need to submit any permit application forms to the EPA If you answer "yes to any questions you must submit this form and the supplemental form listed in the parenthesis following the question Mark X in the box in the third column if the supplemental form is attached If you answer no to each question, you need not submit any of these forms You may answer no if your activity is excluded from permit requirements see Section C of the instructions See also Section D of the instructions for definitions of **bold-faced terms**

SPECIFIC QUESTIONS	Mark X YES	NO	FORM ATTACHED
A Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U S.**? (FORM 2A)	X (16)	(17)	X (18)
B Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U S.**? (FORM 2B)	(19)	X (20)	(21)
C Is this a facility which currently results in **discharges** to **waters of the U S.** other than those described in A or B above? (FORM 2C)	(22)	X (23)	(24)
D Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U S**? (FORM 2D)	(25)	X (26)	(27)
E Does or will this facility treat, store or dispose of **hazardous wastes**? (FORM 3)	(28)	X (29)	(30)
F Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore underground sources of drinking water? (FORM 4)	(31)	X (32)	(33)
G Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production inject fluids used for enhanced recovery of oil or natural gas or inject fluids for storage of liquid hydrocarbons? (FORM 4)	(34)	X (35)	(36)
H Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process solution mining of minerals in situ combustion of fossil fuel or recovery of geothermal energy? (FORM 4)	(37)	X (38)	(39)
I Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	(40)	X (41)	(42)
J Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	(43)	X (44)	(45)

III NAME OF FACILITY

C 1 SKIP: Greensville County - Skippers WWTF (15 16 – 29 30 69)

IV FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B PHONE *(area code & no)*
Warf James, Superintendent of Public Utilities (15 16 45)	(434) 348-4245 (46 48 49 51 52 55)

V FACILITY MAILING ADDRESS

A. STREET OR P O BOX: 1781 Greensville County Circle (15 16 45)

B CITY OR TOWN	C STATE	D ZIP CODE
Emporia (15 16 40)	VA (41 42)	23847 (47 51)

VI FACILITY LOCATION

A. STREET ROUTE NO OR OTHER SPECIFIC IDENTIFIER: 1208 Moores Ferry Road (15 16 45)

B. COUNTY NAME: Greensville (46 70)

C CITY OR TOWN	D STATE	E ZIP CODE	F COUNTY CODE *(if known)*
(15 16 40)	Va (41 42)	(47 51)	(52 54)

CONTINUED FROM THE FRONT

VII SIC CODES *(4-digit in order of priority)*

A. FIRST	B. SECOND
4952 *(specify)* Municipal Wastewater Treatment	*(specify)*
C. THIRD	**D. FOURTH**
(specify)	*(specify)*

VIII OPERATOR INFORMATION

A. NAME	B. Is the name listed in Item VIII A also the owner?
Greensville County Water and Sewer Authority	☑ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box if Other specify)*

F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC *(other than federal or state)*; O = OTHER *(specify)*

M *(specify)*

D. PHONE *(area code & no.)*: A (434) 348-4213

E. STREET OR P.O. BOX: 1781 Greensville County Circle

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
Emporia	Va	23847	Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
N VA0028916	P
B. UIC *(Underground Injection of Fluids)*	**E. OTHER** *(specify)*
U	*(specify)*
C. RCRA *(Hazardous Wastes)*	**E. OTHER** *(specify)*
R	*(specify)*

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

Demestic Wastewater Treatment Plant The plant receives domestic waste from two truck travel plazas and one motel

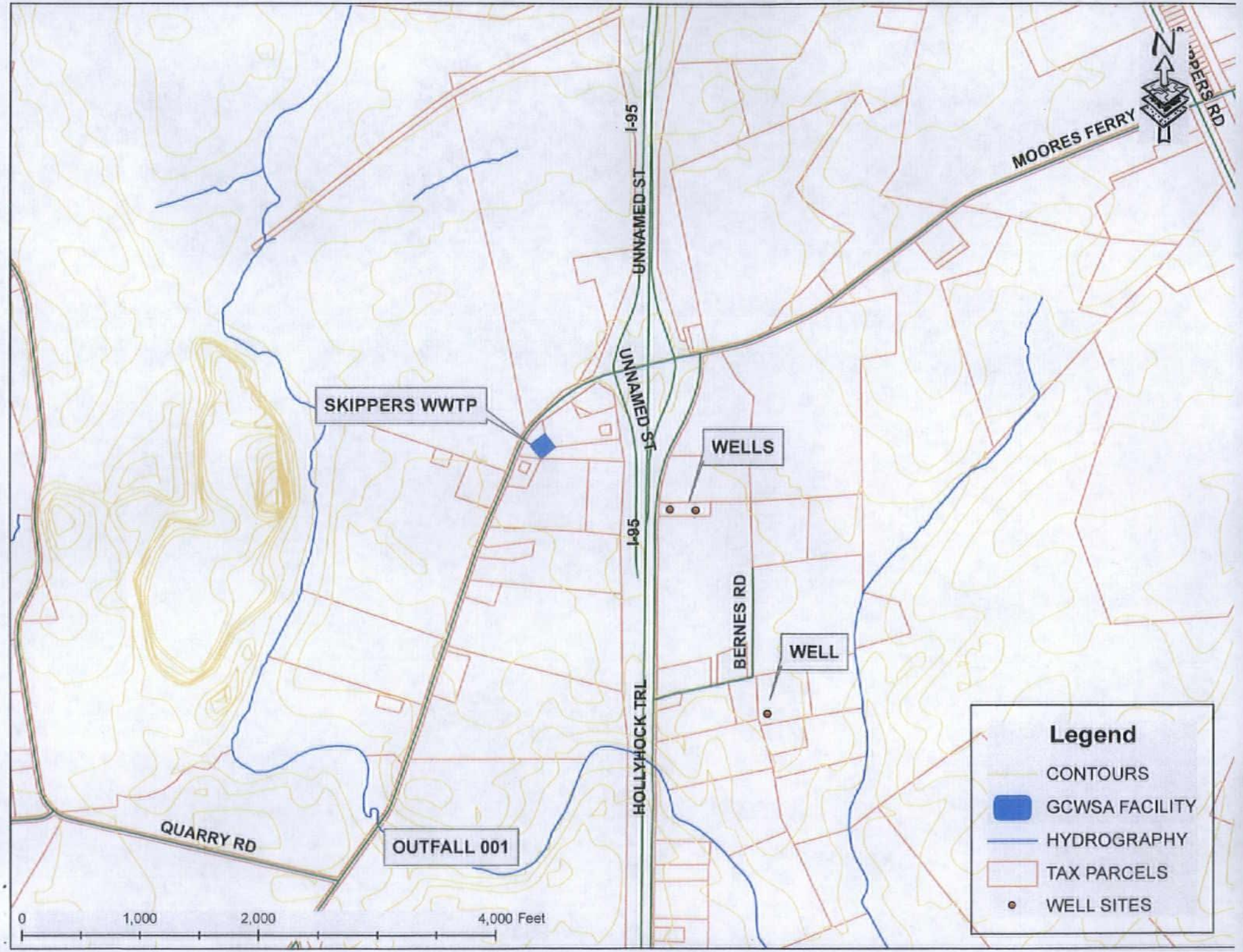
XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
James L. Warf, Superintendent of Public Utilities	James L. Warf	04/29/2013

COMMENTS FOR OFFICIAL USE ONLY

EPA Form 3510-1 (8-90)


SKIPPERS WWTP
WELLS
WELL
OUTFALL 001
I-95
UNNAMED ST
I-95
UNNAMED ST
BERNES RD
HOLLYHOCK TRL
QUARRY RD
MOORES FERRY
SKIPPERS RD
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Legend
CONTOURS
GCWSA FACILITY
HYDROGRAPHY
TAX PARCELS
WELL SITES


MOORES FERRY RD

o R G

VPDES Permit Application Addendum

1 **Entity to whom the permit is to be issued** Greensville County Water and Sewer Authority

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner

2 **Is this facility located within city or town boundaries?** Yes ☐ No ☒

3 **Provide the tax map parcel number for the land where the discharge is located** 44-62B

4 **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 0

5 **What is the design average effluent flow of this facility?** 36 MGD

For industrial facilities, provide the max. 30-day average production level, include units:

NA

In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Yes ☐ No ☒

If "Yes", please identify the other flow tiers (in MGD) or production levels

Please consider the following questions for both the flow tiers and the production levels (if applicable) Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6 **Nature of operations generating wastewater**

Domestic Waste From Truck Plaza, Motel

100 % of flow from domestic

Number of private residences to be served by the treatment works 0

0 % of flow from non-domestic connections/sources

7 **Mode of discharge** ☒ Continuous ☐ Intermittent ☐ Seasonal

Describe frequency and duration of intermittent or seasonal discharges

8 **Identify the characteristics of the receiving stream at the point just above the facility's discharge point.**

X Permanent stream, never dry

___ Intermittent stream, usually flowing, sometimes dry

___ Ephemeral stream, wet-weather flow, often dry

___ Effluent-dependent stream, usually or always dry without effluent flow

___ Lake or pond at or below the discharge point

___ Other

9 **Approval Date(s)**

O & M Manual 2008 **Sludge/Solids Management Plan** 2000

Have there been any changes in your operations or procedures since the above approval dates? Yes ☐ No ☒

ORG.

FACILITY NAME AND PERMIT NUMBER
Greensville County - Skippers WWTF VA0028916

Form Approved 7/1/99
OMB Number 2040-0086

Regional Office

APR 01 2013

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FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet The Basic Application Information packet is divided into two parts All applicants must complete Parts A and C Applicants with a design flow greater than or equal to 0 1 mgd must also complete Part B Some applicants must also complete the Supplemental Application Information packet The following items explain which parts of Form 2A you must complete

BASIC APPLICATION INFORMATION

A **Basic Application Information for all Applicants** All applicants must complete questions A 1 through A 8 A treatment works that discharges effluent to surface waters of the United States must also answer questions A 9 through A 12

B **Additional Application Information for Applicants with a Design Flow ≥ 0 1 mgd** All treatment works that have design flows greater than or equal to 0 1 million gallons per day must complete questions B 1 through B 6

C **Certification** All applicants must complete Part C (Certification)

SUPPLEMENTAL APPLICATION INFORMATION

D **Expanded Effluent Testing Data** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data)

1 Has a design flow rate greater than or equal to 1 mgd,

2 Is required to have a pretreatment program (or has one in place), or

3 Is otherwise required by the permitting authority to provide the information

E **Toxicity Testing Data** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data)

1 Has a design flow rate greater than or equal to 1 mgd

2 Is required to have a pretreatment program (or has one in place), or

3 Is otherwise required by the permitting authority to submit results of toxicity testing

F **Industrial User Discharges and RCRA/CERCLA Wastes** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes) SIUs are defined as

1 All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403 6 and 40 CFR Chapter I, Subchapter N (see instructions), and

2 Any other industrial user that

a Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions), or

b Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant or

c Is designated as an SIU by the control authority

G **Combined Sewer Systems** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A BASIC APPLICATION INFORMATION FOR ALL APPLICANTS

All treatment works must complete questions A 1 through A 8 of this Basic Application Information packet

A 1 Facility Information

Facility name: Greensville County- Skippers WWTF

Mailing Address: 1781 Greensville County Circle
Emporia, Va 23847

Contact person: James Warf

Title: Superintendent of Public Utilities

Telephone number: (434) 348-4245

Facility Address (not P O Box): 1208 Moores Ferry Road,Skippers, Va. 23879
Greensville County

A 2 Applicant Information If the applicant is different from the above provide the following

Applicant name: Greensville County Water and Sewer Authority

Mailing Address: 1781 Greensville County Circle, Emporia, Va. 23847

Contact person: James Warf

Title: Superintendent of Public Utilities

Telephone number: (434) 348-4245

Is the applicant the owner or operator (or both) of the treatment works?

✓ owner ✓ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant

_____ facility ✓ applicant

A 3 Existing Environmental Permits Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits)

NPDES VA 0028916 PSD _____

UIC _____ Other _____

RCRA _____ Other _____

A 4 Collection System Information Provide information on municipalities and areas served by the facility Provide the name and population of each entity and if known provide information on the type of collection system (combined vs separate) and its ownership (municipal private etc)

Name	Population Served	Type of Collection System	Ownership
I95 EXIT #4 AREA	Transient	Separate	Municipal

Total population served 0

A 5 Indian Country

a Is the treatment works located in Indian Country?

_____ Yes ✓ No

b Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A 6 Flow Indicate the design flow rate of the treatment plant (i e the wastewater flow rate that the plant was built to handle) Also provide the average daily flow rate and maximum daily flow rate for each of the last three years Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal (SEE ATTACHMENT A)

a Design flow rate 0 04 mgd

	Two Years Ago	Last Year	This Year	
b Annual average daily flow rate	0 01	0 01	0 01	mgd
c Maximum daily flow rate	0.03	0.03	0.04	mgd

A 7 Collection System Indicate the type(s) of collection system(s) used by the treatment plant Check all that apply Also estimate the percent contribution (by miles) of each

✓ Separate sanitary sewer 100 00 %

_____ Combined storm and sanitary sewer _____ %

A 8 Discharges and Other Disposal Methods

a Does the treatment works discharge effluent to waters of the U S ? ✓ Yes _____ No

If yes list how many of each of the following types of discharge points the treatment works uses

i Discharges of treated effluent 1

ii Discharges of untreated or partially treated effluent NA

iii Combined sewer overflow points NA

iv Constructed emergency overflows (prior to the headworks) NA

v Other _____ NA

b Does the treatment works discharge effluent to basins ponds or other surface impoundments that do not have outlets for discharge to waters of the U S ? _____ Yes ✓ No

If yes provide the following for each surface impoundment

Location _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c Does the treatment works land-apply treated wastewater? _____ Yes ✓ No

If yes provide the following for each land application site

Location _____

Number of acres _____

Annual average daily volume applied to site _____ Mgd

Is land application _____ continuous or _____ intermittent?

d Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ✓ No

If yes describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e g tank truck pipe)

NA

If transport is by a party other than the applicant provide

Transporter name _____

Mailing Address _____

_____

Contact person _____

Title _____

Telephone number _____

For each treatment works that receives this discharge provide the following

Name _____

Mailing Address _____

_____

Contact person _____

Title _____

Telephone number _____

If known provide the NPDES permit number of the treatment works that receives this discharge _____

Provide the average daily flow rate from the treatment works into the receiving facility _____ mgd

e Does the treatment works discharge or dispose of its wastewater in a manner not included in A 8 a through A 8 d above (e g underground percolation well injection)? _____ Yes ✓ No

If yes provide the following for each disposal method

Description of method (including location and size of site(s) if applicable)

_____

Annual daily volume disposed of by this method _____

Is disposal through this method _____ continuous or _____ intermittent?

WASTEWATER DISCHARGES

If you answered "yes" to question A 8 a complete questions A 9 through A 12 once for each outfall (including bypass points) through which effluent is discharged Do not include information on combined sewer overflows in this section If you answered "no" to question A 8 a go to Part B "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0 1 mgd "

A 9 Description of Outfall

a Outfall number 001

b Location

(City or town if applicable)	(Zip Code)
Greensville	Virginia
(County)	(State)
36-35'-40 88N	77-34'-18 78W
(Latitude)	(Longitude)

c Distance from shore (if applicable) _____ ft

d Depth below surface (if applicable) _____ ft.

e Average daily flow rate _____ mgd

f Does this outfall have either an intermittent or a periodic discharge? _____ Yes ✓ No (go to A 9 g)

If yes provide the following information

Number of times per year discharge occurs _____

Average duration of each discharge _____

Average flow per discharge _____ mgd

Months in which discharge occurs _____

g Is outfall equipped with a diffuser? _____ Yes ✓ No

A 10 Description of Receiving Waters

a Name of receiving water Fountain Creek

b Name of watershed (if known) Chowan

United States Soil Conservation Service 14-digit watershed code (if known) _____

c Name of State Management/River Basin (if known) _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known) _____

d Critical low flow of receiving stream (if applicable)
acute _____ cfs chronic _____ cfs

e Total hardness of receiving stream at critical low flow (if applicable) _____ mg/l of $CaCO_3$

A 11 Description of Treatment

a What levels of treatment are provided? Check all that apply

_____ Primary ___✓___ Secondary

_____ Advanced _____ Other Describe _____

b Indicate the following removal rates (as applicable)

Design BOD_5 removal or Design $CBOD_5$ removal	85 00	%
Design SS removal	80 00	%
Design P removal	0 00	%
Design N removal	0 00	%
Other _____	0 00	%

c What type of disinfection is used for the effluent from this outfall? If disinfection varies by season please describe

Sodium Hyprochlorite

If disinfection is by chlonnation is dechlorination used for this outfall? ___✓___ Yes _____ No

d Does the treatment plant have post aeration? ___✓___ Yes _____ No

A 12 Effluent Testing Information **All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged Do not include information on combined sewer overflows in this section All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136 At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart**

SEE ATTACHMENT A

Outfall number 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6 90	s u			
pH (Maximum)	7 90	s u			
Flow Rate	0 02	mgd	0 01	mgd	3 00
Temperature (Winter)	62 00	Ferenheit	36 00	Ferenheit	3 00
Temperature (Summer)	99 00	Ferenheit	86 00	Ferenheit	3 00

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc	Units	Conc	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS								
BIOCHEMICAL OXYGEN	BOD-5	7 00	mg/l	6 60	mg/l	3 00	5210 B	2
DEMAND (Report one)	CBOD-5							
FECAL COLIFORM		0 00	mg/l	0 00	mg/l	3 00	9221C+E	2
TOTAL SUSPENDED SOLIDS (TSS)		7 00	mg/l	4 00	mg/l	3 00	2540D	1 o

END OF PART A
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0 1 MGD (100,000 gallons per day)

All applicants with a design flow rate ≥ 0 1 mgd must answer questions B 1 through B 6 All others go to Part C (Certification)

B 1 Inflow and Infiltration Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration

0 00 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration

Smoke test on simi annual basis, monitor flows

B 2 Topographic Map Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries This map must show the outline of the facility and the following information (You may submit more than one map if one map does not show the entire area) See Attachment B + B-1

a The area surrounding the treatment plant including all unit processes

b The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant Include outfalls from bypass piping if applicable

c Each well where wastewater from the treatment plant is injected underground

d Wells springs other surface water bodies and drinking water wells that are 1) within 1/4 mile of the property boundaries of the treatment works and 2) listed in public record or otherwise known to the applicant

e Any areas where the sewage sludge produced by the treatment works is stored treated or disposed

f If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck rail or special pipe show on the map where that hazardous waste enters the treatment works and where it is treated stored and/or disposed

B 3 Process Flow Diagram or Schematic Provide a diagram showing the processes of the treatment plant including all bypass piping and all backup power sources or redundancy in the system Also provide a water balance showing all treatment units including disinfection (e g chlorination and dechlorination) The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units Include a brief narrative description of the diagram

See Attachment C

B.4 Operation/Maintenance Performed by Contractor(s)

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ____Yes ✓ No

If yes list the name address telephone number and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary)

Name _____

Mailing Address _____

_____

Telephone Number _____

Responsibilities of Contractor _____

B 5 Scheduled Improvements and Schedules of Implementation Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality or design capacity of the treatment works If the treatment works has several different implementation schedules or is planning several improvements submit separate responses to question B 5 for each (If none go to question B 6)

a List the outfall number (assigned in question A 9) for each outfall that is covered by this implementation schedule

001 (see attachement D)

b Indicate whether the planned improvements or implementation schedule are required by local State or Federal agencies

____Yes ✓ No

c If the answer to B 5 b is "Yes " briefly describe including new maximum daily inflow rate (if applicable)

Upgrade will not change capacity of the plant

d Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below as applicable For improvements planned independently of local State or Federal agencies indicate planned or actual completion dates as applicable Indicate dates as accurately as possible

	Schedule	Actual Completion
Implementation Stage	MM / DD / YYYY	MM / DD / YYYY
– Begin construction	4 / 1 / 2013	___/___/____
– End construction	6 / 30 / 2013	___/___/____
– Begin discharge	6 / 30 / 2013	___/___/____
– Attain operational level	6 / 30 / 2013	___/___/____

e Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ✓ Yes ___No

Describe briefly Per DEQ permits are not needed because the work does not effect the discharge rate

B 6 EFFLUENT TESTING DATA (GREATER THAN O 1 MGD ONLY)

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged Do not include information on combined sewer overflows in this section All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136 At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old

Outfall Number NA

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc	Units	Conc	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS							
AMMONIA (as N)							
CHLORINE (TOTAL RESIDUAL TRC)							
DISSOLVED OXYGEN							
TOTAL KJELDAHL NITROGEN (TKN)							
NITRATE PLUS NITRITE NITROGEN							
OIL and GREASE							
PHOSPHORUS (Total)							
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

END OF PART B
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART C CERTIFICATION

All applicants must complete the Certification Section Refer to instructions to determine who is an officer for the purposes of this certification All applicants must complete all applicable sections of Form 2A as explained in the Application Overview Indicate below which parts of Form 2A you have completed and are submitting By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted

Indicate which parts of Form 2A you have completed and are submitting

✓ Basic Application Information packet

Supplemental Application Information packet

_____ Part D (Expanded Effluent Testing Data)

_____ Part E (Toxicity Testing Biomonitoring Data)

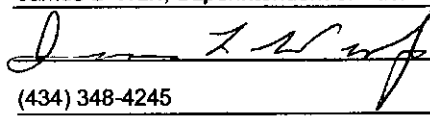
_____ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

_____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information the information is to the best of my knowledge and belief true accurate and complete I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations

Name and official title: James L Warf, Superintendent of Public Utilities

Signature: 

Telephone number: (434) 348-4245

Date signed: 4/29/2013

Upon request of the permitting authority you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements

SEND COMPLETED FORMS TO

SUPPLEMENTAL APPLICATION INFORMATION

PART D EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works

Effluent Testing 1 0 mgd and Pretreatment Treatment Works If the treatment works has a design flow greater than or equal to 1 0 mgd or it has (or is required to have) a pretreatment program or is otherwise required by the permitting authority to provide the data then provide effluent testing data for the following pollutants Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged Do not include information on combined sewer overflows in this section All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods In addition these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136 Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form At a minimum effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old

Outfall number 001 NA (Complete once for each outfall discharging effluent to waters of the United States)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc	Units	Mass	Units	Conc	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS											
ANTIMONY											
ARSENIC											
BERYLLIUM											
CADMIUM											
CHROMIUM											
COPPER											
LEAD											
MERCURY											
NICKEL											
SELENIUM											
SILVER											
THALLIUM											
ZINC											
CYANIDE											
TOTAL PHENOLIC COMPOUNDS											
HARDNESS (AS $CaCO_3$)											
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											

FACILITY NAME AND PERMIT NUMBER
Greensville County - Skippers WWTF VA0028916

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number 001 NA (Complete once for each outfall discharging effluent to waters of the United States)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc	Units	Mass	Units	Conc	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS											
ACROLEIN											
ACRYLONITRILE											
BENZENE											
BROMOFORM											
CARBON TETRACHLORIDE											
CLOROBENZENE											
CHLORODIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO ETHYLVINYL ETHER											
CHLOROFORM											
DICHLOROBROMO METHANE											
1 1-DICHLOROETHANE											
1 2-DICHLOROETHANE											
TRANS-1 2 DICHLORO-ETHYLENE											
1 1 DICHLOROETHYLENE											
1 2 DICHLOROPROPANE											
1 3-DICHLORO-PROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1 1 2 2 TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

Outfall number 001 NA (Complete once for each outfall discharging effluent to waters of the United States)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc	Units	Mass	Units	Conc	Units	Mass	Units	Number of Samples		
1 1 1-TRICHLOROETHANE											
1 1 2 TRICHLOROETHANE											
TRICHLORETHYLENE											
VINYL CHLORIDE											
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M CRESOL											
2-CHLOROPHENOL											
2 4-DICHLOROPHENOL											
2 4-DIMETHYLPHENOL											
4 6-DINITRO-O-CRESOL											
2 4-DINITROPHENOL											
2 NITROPHENOL											
4-NITROPHENOL											
PENTACHLOROPHENOL											
PHENOL											
2 4 6-TRICHLOROPHENOL											
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer											
BASE-NEUTRAL COMPOUNDS											
ACENAPHTHENE											
ACENAPHTHYLENE											
ANTHRACENE											
BENZIDINE											
BENZO(A)ANTHRACENE											
BENZO(A)PYRENE											

Outfall number 001 NA (Complete once for each outfall discharging effluent to waters of the United States)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc	Units	Mass	Units	Conc	Units	Mass	Units	Number of Samples		
3 4 BENZO-FLUORANTHENE											
BENZO(GHI)PERYLENE											
BENZO(K)FLUORANTHENE											
BIS (2-CHLOROETHOXY) METHANE											
BIS (2 CHLOROETHYL) ETHER											
BIS (2 CHLOROISO-PROPYL) ETHER											
BIS (2 ETHYLHEXYL) PHTHALATE											
4-BROMOPHENYL PHENYL ETHER											
BUTYL BENZYL PHTHALATE											
2-CHLORONAPHTHALENE											
4-CHLORPHENYL PHENYL ETHER											
CHRYSENE											
DI-N-BUTYL PHTHALATE											
DI N-OCTYL PHTHALATE											
DIBENZO(A,H) ANTHRACENE											
1 2 DICHLOROBENZENE											
1 3-DICHLOROBENZENE											
1 4-DICHLOROBENZENE											
3 3-DICHLOROBENZIDINE											
DIETHYL PHTHALATE											
DIMETHYL PHTHALATE											
2 4-DINITROTOLUENE											
2 6-DINITROTOLUENE											
1 2 DIPHENYLHYDRAZINE											

Outfall number 001 NA (Complete once for each outfall discharging effluent to waters of the United States)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	MU/ MDL
	Conc	Units	Mass	Units	Conc	Units	Mass	Units	Number of Samples		
FLUORANTHENE											
FLUORENE											
HEXACHLOROBENZENE											
HEXACHLOROBUTADIENE											
HEXACHLOROCYCLO PENTADIENE											
HEXACHLOROETHANE											
INDENO(1 2 3-CD)PYRENE											
ISOPHORONE											
NAPHTHALENE											
NITROBENZENE											
N-NITROSODI N PROPYLAMINE											
N NITROSODI METHYLAMINE											
N NITROSODI PHENYLAMINE											
PHENANTHRENE											
PYRENE											
1 2 4-TRICHLOROBENZENE											
Use this space (or a separate sheet) to provide information on other base neutral compounds requested by the permit writer											
Use this space (or a separate sheet) to provide information on other pollutants (e g pesticides) requested by the permit writer											

END OF PART D
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART E TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility s discharge points 1) POTWs with a design flow rate greater than or equal to 1 0 mgd 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403) or 3) POTWs required by the permitting authority to submit data for these parameters

- At a minimum these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species) or the results from four tests performed at least annually in the four and one-half years prior to the application provided the results show no appreciable toxicity and testing for acute and/or chronic toxicity depending on the range of receiving water dilution Do not include information on combined sewer overflows in this section All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods In addition this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136
- In addition submit the results of any other whole effluent toxicity tests from the past four and one-half years If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation if one was conducted
- If you have already submitted any of the information requested in Part E you need not submit it again Rather provide the information requested in question E 4 for previously submitted information If EPA methods were not used, report the reasons for using alternate methods If test summaries are available that contain all of the information requested below they may be submitted in place of Part E

If no biomonitoring data is required do not complete Part E Refer to the Application Overview for directions on which other sections of the form to complete

E 1 Required Tests

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years

____chronic ____acute

E 2 Individual Test Data Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years Allow one column per test (where each species constitutes a test) Copy this page if more than three tests are being reported

	Test number _____	Test number _____	Test number _____
a Test information			
Test species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			
b Give toxicity test methods followed			
Manual title			
Edition number and year of publication			
Page number(s)			
c Give the sample collection method(s) used For multiple grab samples indicate the number of grab samples used			
24-Hour composite			
Grab			
d Indicate where the sample was taken in relation to disinfection (Check all that apply for each)			
Before disinfection			
After disinfection			
After dechlorination			

	Test number _____	Test number _____	Test number _____
e Describe the point in the treatment process at which the sample was collected			
Sample was collected			
f For each test include whether the test was intended to assess chronic toxicity acute toxicity or both			
Chronic toxicity			
Acute toxicity			
g Provide the type of test performed			
Static			
Static-renewal			
Flow-through			
h Source of dilution water If laboratory water specify type If receiving water specify source			
Laboratory water			
Receiving water			
i Type of dilution water If salt water specify "natural" or type of artificial sea salts or brine used			
Fresh water			
Salt water			
j Give the percentage effluent used for all concentrations in the test series			
k Parameters measured during the test (State whether parameter meets test method specifications)			
pH			
Salinity			
Temperature			
Ammonia			
Dissolved oxygen			
l Test Results			
Acute			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C I	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic			
NOEC	%	%	%
IC_{25}	%	%	%
Control percent survival	%	%	%
Other (describe)			

m Quality Control/Quality Assurance

Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E 3 Toxicity Reduction Evaluation Is the treatment works involved in a Toxicity Reduction Evaluation?

____Yes____No If yes describe _____

_____

_____

E 4 Summary of Submitted Biomonitoring Test Information If you have submitted biomonitoring test information or information regarding the cause of toxicity within the past four and one-half years provide the dates the information was submitted to the permitting authority and a summary of the results

Date submitted _____ (MM/DD/YYYY)

Summary of results (see instructions)

_____

_____

END OF PART E
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART F INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F

GENERAL INFORMATION

F 1 Pretreatment Program Does the treatment works have or is it subject to an approved pretreatment program?

____Yes____No

F 2 Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs) Provide the number of each of the following types of industrial users that discharge to the treatment works

a Number of non-categorical SIUs _____

b Number of CIUs _____

SIGNIFICANT INDUSTRIAL USER INFORMATION

Supply the following information for each SIU If more than one SIU discharges to the treatment works, copy questions F 3 through F 8 and provide the information requested for each SIU

F 3 Significant Industrial User Information Provide the name and address of each SIU discharging to the treatment works Submit additional pages as necessary

Name _____

Mailing Address _____

_____

F 4 Industrial Processes Describe all of the industrial processes that affect or contribute to the SIU s discharge

_____

F 5 Principal Product(s) and Raw Material(s) Describe all of the principal processes and raw materials that affect or contribute to the SIU s discharge

Principal product(s) _____

Raw material(s) _____

F 6 Flow Rate

a Process wastewater flow rate Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent

_____ gpd (_____continuous or _____intermittent)

b Non-process wastewater flow rate Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent

_____ gpd (_____continuous or _____intermittent)

F 7 Pretreatment Standards Indicate whether the SIU is subject to the following

a Local limits ____Yes ____No

b Categorical pretreatment standards ____Yes ____No

If subject to categorical pretreatment standards which category and subcategory?

_____

F 8 Problems at the Treatment Works Attributed to Waste Discharged by the SIU Has the SIU caused or contributed to any problems (e g upsets interference) at the treatment works in the past three years?

____Yes____No If yes describe each episode

_____

_____

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE

F 9 RCRA Waste Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck rail or dedicated pipe? ____Yes ___No (go to F 12)

F 10 Waste Transport Method by which RCRA waste is received (check all that apply)

_____Truck _____Rail _____Dedicated Pipe

F 11 Waste Description Give EPA hazardous waste number and amount (volume or mass specify units)

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER

F 12 Remediation Waste Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____Yes (complete F 13 through F 15) ____No

Provide a list of sites and the requested information (F 13 - F 15) for each current and future site

F 13 Waste Origin Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years)

_____

_____

_____

F 14 Pollutants List the hazardous constituents that are received (or are expected to be received) Include data on volume and concentration if known (Attach additional sheets if necessary)

_____

_____

F 15 Waste Treatment

a Is this waste treated (or will it be treated) prior to entering the treatment works?

____Yes ____No

If yes describe the treatment (provide information about the removal efficiency)

_____

_____

b Is the discharge (or will the discharge be) continuous or intermittent?

____Continuous ____Intermittent If intermittent describe discharge schedule

_____

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART G COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G

G 1 System Map Provide a map indicating the following (may be included with Basic Application Information)

a All CSO discharge points

b Sensitive use areas potentially affected by CSOs (e g beaches drinking water supplies shellfish beds sensitive aquatic ecosystems and outstanding natural resource waters)

c Waters that support threatened and endangered species potentially affected by CSOs

G 2 System Diagram Provide a diagram either in the map provided in G 1 or on a separate drawing of the combined sewer collection system that includes the following information

a Locations of major sewer trunk lines, both combined and separate sanitary

b Locations of points where separate sanitary sewers feed into the combined sewer system

c Locations of in-line and off-line storage structures

d Locations of flow-regulating devices

e Locations of pump stations

CSO OUTFALLS

Complete questions G 3 through G 6 once for each CSO discharge point

G 3 Description of Outfall

a Outfall number _____

b Location _____
(City or town if applicable) (Zip Code)

_____
(County) (State)

_____
(Latitude) (Longitude)

c Distance from shore (if applicable) _____ ft

d Depth below surface (if applicable) _____ ft

e Which of the following were monitored during the last year for this CSO?

____Rainfall ____CSO pollutant concentrations ____CSO frequency

____CSO flow volume ____Receiving water quality

f How many storm events were monitored during the last year? _____

G 4 CSO Events

a Give the number of CSO events in the last year

_____ events (___ actual or ___ approx)

b Give the average duration per CSO event

_____ hours (____ actual or ____ approx)

c Give the average volume per CSO event

_____ million gallons (_____ actual or _____ approx)

d Give the minimum rainfall that caused a CSO event in the last year

_____ inches of rainfall

G 5 Description of Receiving Waters

a Name of receiving water _____

b Name of watershed/river/stream system _____

United States Soil Conservation Service 14-digit watershed code (if known) _____

c Name of State Management/River Basin _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known) _____

G 6 CSO Operations

Describe any known water quality impacts on the receiving water caused by this CSO (e g permanent or intermittent beach closings permanent or intermittent shell fish bed closings fish kills fish advisories other recreational loss or violation of any applicable State water quality standard)

_____

_____

END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

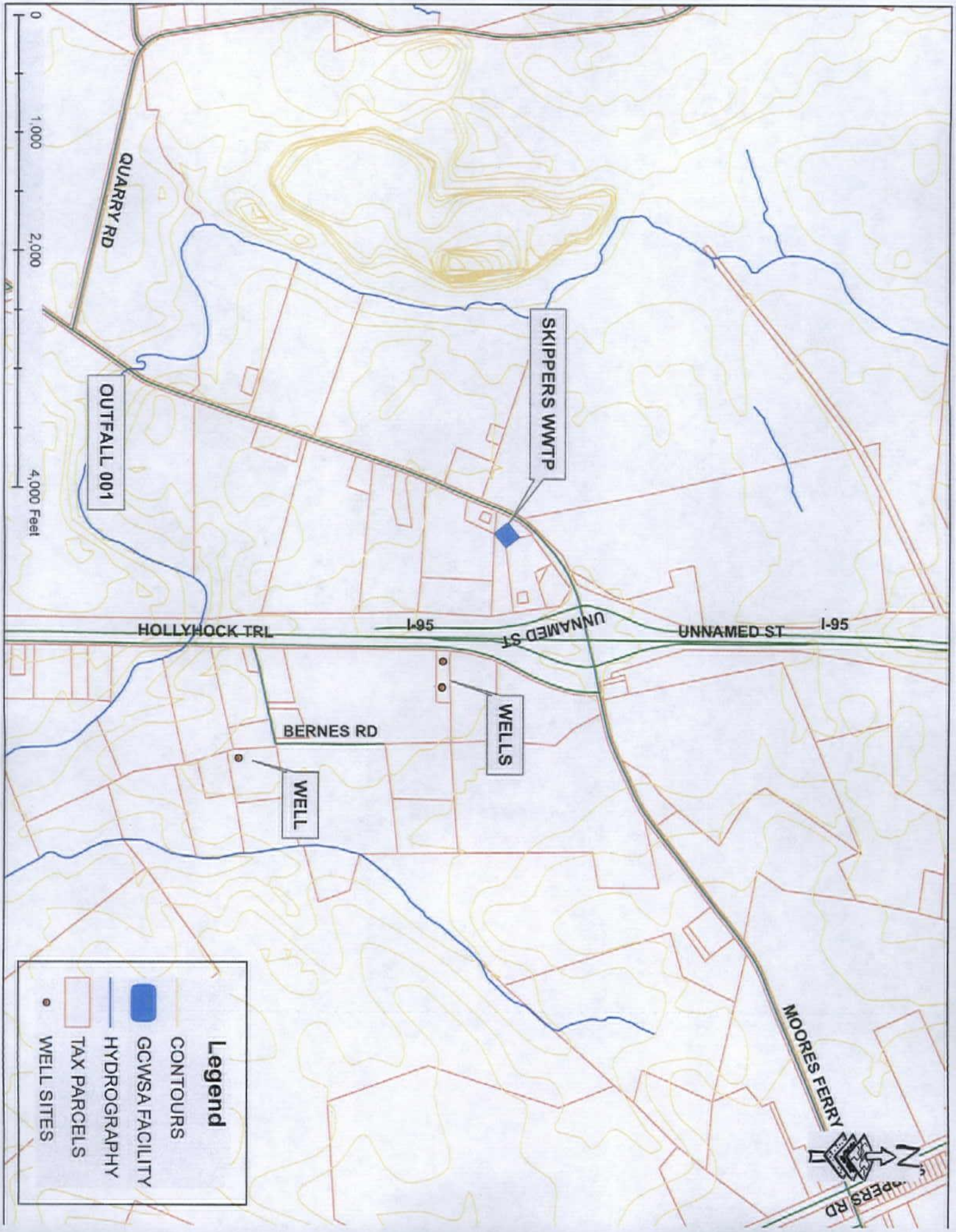
Attachment A

Skippers WWTF

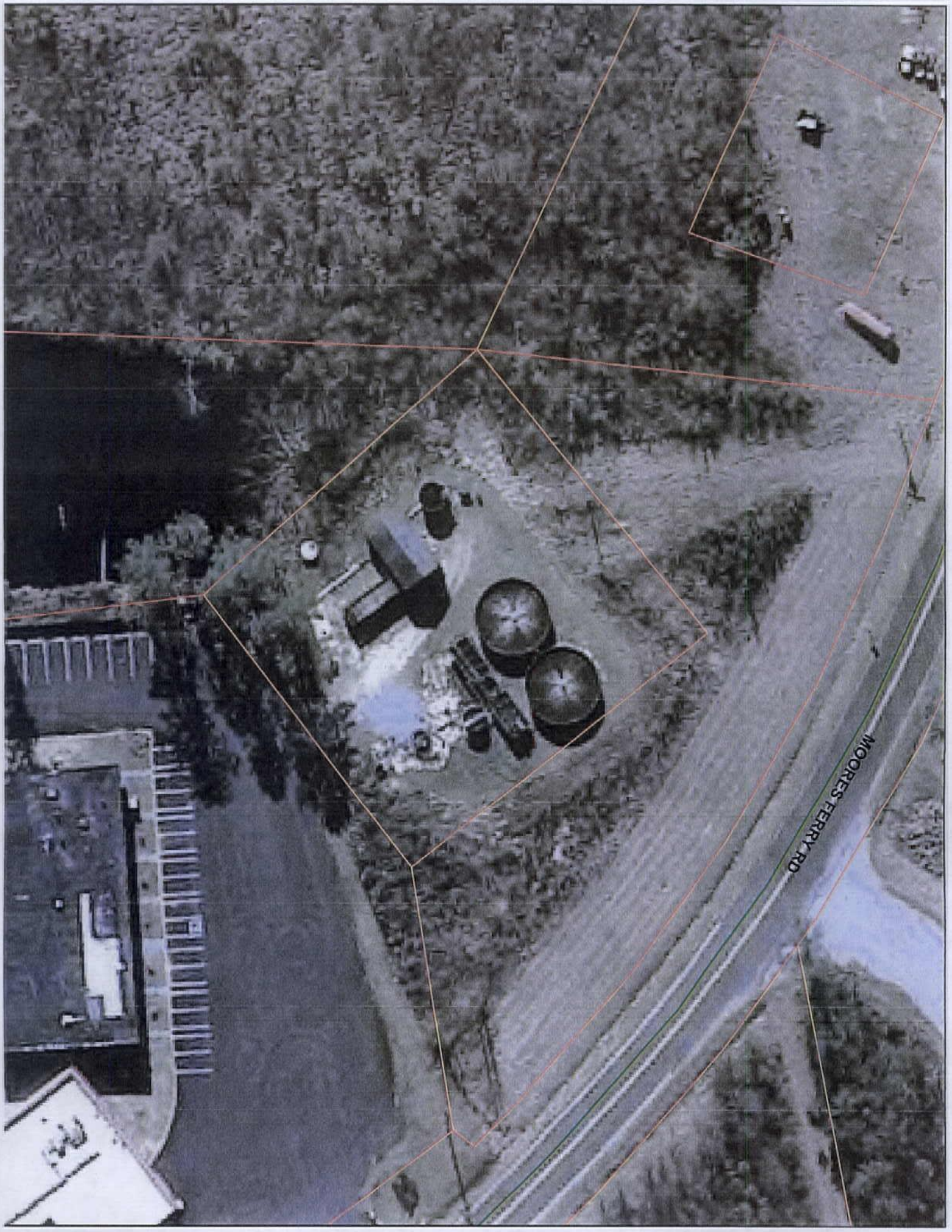
DATE	PARAMETER	MUM DAILY VALUE			AVERAGE DAILY VALUE		
		VALUE	UNITS	MIN / MAX	VALUE	UNITS	AVE
1/10	PH (Minimum)	6 9	su				
3/11	PH (Minimum)	6 9	su	7 1			
7/12	PH (Minimum)	7 1	su				
1/10	PH (Maximum)	7 9	su				
3/11	PH (Maximum)	7 6	su	7 9			
7/12	PH (Maximum)	7 7	su				
1/10	Flow Rate	0 015	mgd		0 011	mgd	
3/11	Flow Rate	0 018	mgd	0 021	0 011	mgd	0 0126
7/12	Flow Rate	0 021	mgd		0 016	mgd	
1/10	Temperature (Winter)	67	F		39	F	
1/11	Temperature (Winter)	60	F	62	30	F	36
1/12	Temperature (Winter)	60	F		39	F	
7/10	Temperature (Summer)	105	F		90	F	
7/11	Temperature (Summer)	100	F	99	86	F	86
7/12	Temperature (Summer)	92	F		84	F	

DATE	POLLUTANT	DAILY DISCHARGE			AVE DAILY DISCHARGE		
		CONC	UNITS	MIN / MAX	CONC	UNITS	AVE
	INFLUENT BOD5		mg/l			mg/l	
	INFLUENT BOD5		mg/l			mg/l	
	INFLUENT BOD5		mg/l			mg/l	
9/11	EFFLUENT BOD5	6	mg/l		6	mg/l	
3/12	EFFLUENT BOD5	7	mg/l	6 6	7	mg/l	6 6
8/12	EFFLUENT BOD5	7	mg/l		7	mg/l	
11/12	FECAL COLIFORM	0	n/100ml		0	n/100ml	
12/12	FECAL COLIFORM	0	n/100ml	0	0	n/100ml	0
3/13	FECAL COLIFORM	0	n/100ml		0	n/100ml	
9/11	TSS	1	mg/l		1	mg/l	
3/12	TSS	4	mg/l	7	4	mg/l	4
8/12	TSS	7	mg/l		7	mg/l	
6/12	AMMONIA (as n)	0 071	mg/l		0 071	mg/l	
7/12	AMMONIA (as n)	1 6	mg/l	0 78	1 6	mg/l	0 78
11/12	AMMONIA (as n)	0 69	mg/l		0 69	mg/l	
6/12	CHLORINE-TRC	1	mg/l		2 8	mg/l	
10/12	CHLORINE-TRC	1	mg/l	1	1 56	mg/l	2
11/12	CHLORINE-TRC	1	mg/l		1 66	mg/l	
6/12	DISSOLVED OXYGEN	6 1	mg/l		6 8	mg/l	
10/12	DISSOLVED OXYGEN	6 5	mg/l	7 13	7 7	mg/l	8 2
11/12	DISSOLVED OXYGEN	8 8	mg/l		10 1	mg/l	
11/12	TOTAL KJELDAHL NITROGEN	0	mg/l		0	mg/l	
12/12	TOTAL KJELDAHL NITROGEN	0	mg/l		0	mg/l	
3/13	TOTAL KJELDAHL NITROGEN		mg/l			mg/l	
11/12	NITROGEN NITRATE+NITRITE	74 6	mg/l		74 6	mg/l	
12/12	NITROGEN NITRATE+NITRITE	80 8	mg/l	76 9	80 8	mg/l	76 9
3/13	NITROGEN NITRATE+NITRITE	75 3	mg/l		75 3	mg/l	
11/12	OIL and GREASE	0	mg/l		0	mg/l	
12/12	OIL and GREASE	0	mg/l	0	0	mg/l	0
3/13	OIL and GREASE	0	mg/l		0	mg/l	
11/12	PHOSPHORUS (Total)	6 55	mg/l		6 55	mg/l	
12/12	PHOSPHORUS (Total)	6 49	mg/l	6 44	6 49	mg/l	6 44
3/13	PHOSPHORUS (Total)	6 29	mg/l		6 29	mg/l	
11/12	TOTAL DISSOLVED SOLIDS	1016	mg/l		1016	mg/l	
12/12	TOTAL DISSOLVED SOLIDS	880	mg/l	958	88	mg/l	958
3/13	TOTAL DISSOLVED SOLIDS	980	mg/l		980	mg/l	

Attachment B

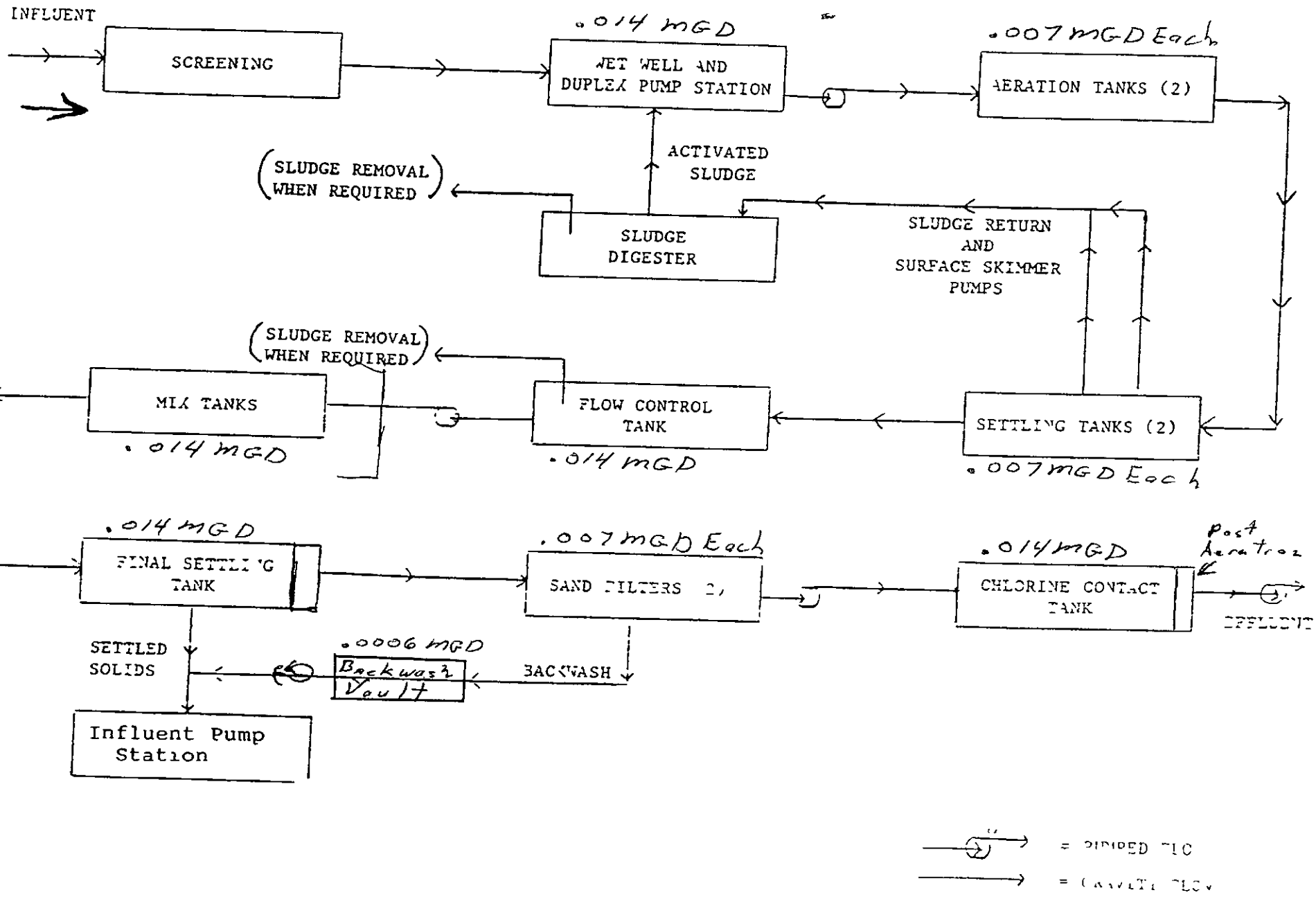


Attachment B-1



ATTACHMENT C

TERTIARY TREATMENT FLOW DIAGRAM



ATTACHMENT D

Form 2A Part B Item B 5 a Scheduled Improvements and Schedules of Implementation

We are in the process of replacing the original duplex influent pump station with a new station Are also adding telescopic valves to the settling tanks to allow us to return the sludge from these tanks thru the pump station and send it back to the aeration tanks The intention of this upgrade is to assist in better treatment of the wastewater and provide a better quality discharge

With the addition of a second travel plaza discharging to this plant we wanted to be pro active in our treatment of the wastewater The changes do not increase the capacity of the plant
In discussions with DEQ personnel we were told that their review or a permitwere not needed

ORG,

FACILITY NAME: Greensville County – Skippers WWTF **VPDES PERMIT NUMBER: VA0028916**

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into four sections Section A pertains to all applicants The applicability of Sections B, C and D depends on your facility's sewage sludge use or disposal practices The information provided on this page will help you determine which sections to fill out

1 All applicants must complete Section A (General Information)

2 Does this facility generate sewage sludge? __X__ Yes _____ No

Does this facility derive a material from sewage sludge? _____ Yes __X__ No

If you answered "Yes" to either, complete Section B (Generation Of Sewage Sludge or Preparation Of A Material Derived From Sewage Sludge)

3 Does this facility apply sewage sludge to the land? _____ Yes __X__ No

Is sewage sludge from this facility applied to the land? _____ Yes __X__ No

If you answer "No" to all above, skip Section C

If you answered "Yes" to either, answer the following three questions

a Does the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
_____ Yes _ X__ No

b Is sewage sludge from this facility placed in a bag or other container for sale or give-away for application to the land?
_____ Yes __X__ No

c Is sewage sludge from this facility sent to another facility for treatment or blending? __ X_ Yes _____ No

If you answered "No" to all three, complete Section C (Land Application Of Bulk Sewage Sludge)

If you answered "Yes" to a, b or c, skip Section C

4 Do you own or operate a surface disposal site? _____ Yes ___X_ No

If "Yes", complete Section D (Surface Disposal)

SECTION A. GENERAL INFORMATION

All applicants must complete this section

1. **Facility Information.**
   a Facility name Greensville County-SKIPPERS WWTF
   b Contact person James Warf
   Title Superintendent of Public Utilities
   Phone (434) 348-4245
   c Mailing address
   Street 1781 Greensville County Circle
   City or Town Emporia State Va Zip 23847
   d Facility location
   Street or Route # 1208 Moores Ferry Road
   County Greensville
   City or Town Skippers State Va Zip 23879
   e Is this facility a Class I sludge management facility? ___Yes _X___ No
   f Facility design flow rate 036 mgd
   g Total population served Transient
   h Indicate the type of facility
   __X__ Publicly owned treatment works (POTW)
   _____ Privately owned treatment works
   _____ Federally owned treatment works
   _____ Blending or treatment operation
   _____ Surface disposal site
   _____ Other (describe) _____

2. **Applicant Information.** If the applicant is different from the above, provide the following
   a Applicant name Same as above
   b Mailing address NA
   Street or P O Box _____
   City or Town _____ State _____ Zip _____
   c Contact person _____
   Title _____
   Phone (_____) _____
   d Is the applicant the owner or operator (or both) of this facility?
   ___X__ owner ___X_ operator
   e Should correspondence regarding this permit be directed to the facility or the applicant?
   _____ facility ___X_ applicant

3. **Permit Information.**
   a Facility's VPDES permit number (if applicable) VA0028916
   b List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices

Permit Number	Type of Permit
____NA_____	_____
_____	_____

4. **Indian Country.** Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? _____ Yes _X_ No If "Yes", describe

_____

5. **Topographic Map.** Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information Maps should include the area one mile beyond all property boundaries of the facility SEE ATTACHMENT A
   a Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed
   b Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries

6. **Line Drawing.** Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction SEE ATTACHMENT B

7. **Contractor Information.** Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _____ Yes __X_ No

   If "Yes", provide the following for each contractor (attach additional pages if necessary)

   Name _____

   Mailing address

   Street or P O Box _____

   City or Town _____ State _____ Zip _____

   Phone (_____) _____

   Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge

   _____

   If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s)

8. **Pollutant Concentrations.** Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq for this facility's expected use or disposal practices All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old **SEE ATTACHMENT C**

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic	NA			
Cadmium	NA			
Chromium	NA			
Copper	NA			
Lead	NA			
Mercury	NA			
Molybdenum	NA			
Nickel	NA			
Selenium	NA			
Zinc	NA			

9. **Certification.** Read and submit the following certification statement with this application Refer to the instructions to determine who is an officer for purposes of this certification Indicate which parts of the application you have completed and are submitting

__X__ Section A (General Information)

___X__ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

__NA___ Section C (Land Application of Bulk Sewage Sludge)

___NA__ Section D (Surface Disposal)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations "

Name and official title James L Warf, Superintendent of Public Utilities

Signature _____ Date Signed 4/29/2013_____

Telephone number (434) 348-4245

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1 **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility ____7 0_____ dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received If you receive sewage sludge from more than one facility, attach additional pages as necessary

a Facility name __N/A_____

b Contact Person _____

Title _____

Phone (_____) _____

c Mailing address

Street or P O Box _____

City or Town _____ State _____ Zip _____

d Facility location _____

(not P O Box) _____

e Total dry metric tons per 365-day period received from this facility _____ dry metric tons

f Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics

_____

_____

3. **Treatment Provided at Your Facility.**

a Which class of pathogen reduction is achieved for the sewage sludge at your facility?
_____ Class A _____ Class B ___X__ Neither or unknown

b Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge

_____

_____

c Which vector attraction reduction option is met for the sewage sludge at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11 5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

___X__ None or unknown

d Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge
__N/A_____

_____

e Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including

blending, not identified in a - d above
____N/A_____

4. **Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).**

(If sewage sludge from your facility does not meet all of these criteria, skip Question 4)

a Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land
_____N/A_____ dry metric tons

b Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
_____ Yes ___X__ No

5. **Sale or Give-Away in a Bag or Other Container for Application to the Land.**

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application Skip this question if sewage sludge is covered in Question 4)

a Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land _____N/A_____ dry metric tons

b Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land

6. **Shipment Off Site for Treatment or Blending.**

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending This question does not apply to sewage sludge sent directly to a land application or surface disposal site Skip this question if the sewage sludge is covered in Questions 4 or 5 If you send sewage sludge to more than one facility, attach additional sheets as necessary)

a Receiving facility name Three Creek WWTF

b Facility contact Clifford Brown
Title Chief Wastewater Treatment Plant Operator
Phone (434) 634-6094

c Mailing address
Street or P O Box1781 Greensville County Circle
City or Town Emporia State Va Zip 23847

d Total dry metric tons per 365-day period of sewage sludge provided to receiving facility
_7 0 dry metric tons

e List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices

Permit Number	Type of Permit
_VA0077259_	_VPDES_____
_____	_____

f Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?
_____ Yes ___x__ No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
_____ Class A _____ Class B ___X__ Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge

g Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? _____ Yes __X___ No

Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11 5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

___X__ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge _____N/A_____

h Does the receiving facility provide any additional treatment or blending not identified in f or g above? _X__ Yes _____ No

If "Yes", describe, on this form or another sheet of paper, the treatment processes not identified in f or g above

Sludge is put into the receiving plant at the head works and run thru the plant for additional treatment

i If you answered "Yes" to f, g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530 G

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? _____ Yes ___X__ No

If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away

k Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ___X__ Yes _____ No If "No", provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility

Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported _ SEE ATTACHMENT D_____

7. Land Application of Bulk Sewage Sludge. N/A

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6 Complete Question 7 b, c & d only if you are responsible for land application of sewage sludge)NA

a Total dry metric tons per 365-day period of sewage sludge applied to all land application sites

___NA_____ dry metric tons

b Do you identify all land application sites in Section C of this application? _____ Yes _____ No

If "No", submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions)

c Are any land application sites located in States other than Virginia? _____ Yes _____ No

If "Yes", describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located Provide a copy of the notification

d Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV)

8. Surface Disposal. N/A

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site)

a Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites _____ dry metric tons

b Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
_____ Yes _____ No

If "No", answer questions c - g for each surface disposal site that you do not own or operate If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary

c Site name or number _____

d Contact person _____

Title _____

Phone (_____) _____

Contact is _____ Site Owner _____ Site operator

e Mailing address

Street or P O Box _____

City or Town _____ State _____ Zip _____

f Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site _____ dry metric tons

g List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site

Permit Number	Type of Permit
_____	_____
_____	_____

9. Incineration. N/A

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator)

a Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator _____ dry metric tons

b Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
_____ Yes _____ No

If "No", answer questions c - g for each sewage sludge incinerator that you do not own or operate If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary

c Incinerator name or number _____

d Contact person _____

Title _____

Phone (_____) _____

Contact is _____ Incinerator Owner _____ Incinerator Operator

e Mailing address

Street or P O Box _____

City or Town _____ State _____ Zip _____

f Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator _____ dry metric tons

g List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing

of sewage sludge at this incinerator

Permit Number Type of Permit

_____ _____

_____ _____

10. Disposal in a Municipal Solid Waste Landfill. N/A

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a Landfill name NA_____

b Contact person _____

Title _____

Phone (_____) _____

Contact is _____ Landfill Owner _____ Landfill Operator

c Mailing address

Street or P O Box _____

City or Town _____ State _____ Zip _____

d Landfill location

Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

e Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill

_____ dry metric tons

f List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill

Permit Number Type of Permit

_____ _____

_____ _____

g Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq , concerning the quality of materials disposed in a municipal solid waste landfill?
_____ Yes _____ No

h Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq ? _____ Yes _____ No

i Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? _____ Yes _____ No

Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported

_____

_____

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply

- ***The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B 4 instead) (EQ Sludge), or***
- ***The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B 5 instead), or***
- ***You provide the sewage sludge to another facility for treatment or blending (fill out B 6 instead)***

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site. N/A

a Site name or number NA

b Site location (Complete i and ii)

i Street or Route# _____

County _____

City or Town _____ State _____ Zip _____

ii Latitude _____ Longitude _____

Method of latitude/longitude determination

_____ USGS map _____ Filed survey _____ Other

c Topographic map Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location

2. Owner Information NA

a Are you the owner of this land application site? _____ Yes _____ No

b If "No", provide the following information about the owner

Name _____

Street or P O Box _____

City or Town _____ State _____ Zip _____

Phone (_____) _____

3. Applier Information: NA

a Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?

_____ Yes _____ No

b If "No", provide the following information for the person who applies the sewage sludge

Name _____

Street or P O Box _____

City or Town _____ State _____ Zip _____

Phone (_____) _____

c List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site

Permit Number	Type of Permit
_____	_____
_____	_____

4. Site Type. Identify the type of land application site from among the following NA

_____ Agricultural land _____ Reclamation site _____ Forest

_____ Public contact site _____ Other (describe _____

5. Vector Attraction Reduction. NA

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?

_____ Yes _____ No If "Yes", answer a and b

a Indicate which vector attraction reduction option is met

_____ Option 9 (Injection below land surface)

_____ Option 10 (Incorporation into soil within 6 hours)

b Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge

_____

_____

6. Cumulative Loadings and Remaining Allotments. NA

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

a Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? _____ Yes _____ No

If "No", sewage sludge subject to the CPLRs may not be applied to this site

If "Yes", provide the following information

Permitting authority

_____

Contact person _____

Phone (_____) _____

b Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? _____ Yes _____ No If "No", skip the rest of Question 6 If "Yes", answer questions c - e

c Site size, in hectares _____ (one hectare = 2 471 acres)

d Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993 If more than one such facility sends sewage sludge to this site, attach additional pages as necessary

Facility name _____

Facility contact _____

Title _____

Phone (_____) _____

Mailing address

Street or P O Box _____

City or Town _____ State _____ Zip _____

e Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants

	Cumulative loading	Allotment remaining
Arsenic	_____	_____
Cadmium	_____	_____
Copper	_____	_____
Lead	_____	_____
Mercury	_____	_____
Nickel	_____	_____
Selenium	_____	_____
Zinc	_____	_____

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage

sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A 7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter NA

PCBs (mg/kg) _____

pH (S U) _____

Percent Solids (%) _____

Ammonium Nitrogen (mg/kg) _____

Nitrate Nitrogen (mg/kg) _____

Total Kjeldahl Nitrogen (mg/kg) _____

Total Phosphorus (mg/kg) _____

Total Potassium (mg/kg) _____

Alkalinity as $CaCO_3$* (mg/kg) _____

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent $CaCO_3$

8. Storage Requirements. NA

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule Include pertinent calculations justifying storage requirements

Proposed sludge storage facilities must also provide the following information

a A sludge storage site layout on a 7 5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0 25 mile Clearly mark the property line

1) Water wells, abandoned or operating
2) Surface waters
3) Springs
4) Public water supply(s)
5) Sinkholes
6) Underground and/or surface mines
7) Mine pool (or other) surface water discharge points
8) Mining spoil piles and mine dumps
9) Quarry(s)
10) Sand and gravel pits
11) Gas and oil wells
12) Diversion ditch(s)
13) Agricultural drainage ditch(s)
14) Occupied dwellings, including industrial and commercial establishments
15) Landfills or dumps
16) Other unlined impoundments
17) Septic tanks and drainfields
18) Injection wells
19) Rock outcrops

b A topographic map of sufficient detail to clearly show the following information

1) Maximum and minimum percent slopes
2) Depressions on the site that may collect water
3) Drainageways that may attribute to rainfall run-on to or runoff from this site
4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding

c Data and specifications for the storage facility lining material

d Plan and cross-sectional views of the storage facility

e Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table

9. **Land Area Requirements.** Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application

10. **Landowner Agreement Forms.** Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant

11. **Ground Water Monitoring.**

    Are any ground water monitoring data available for this land application site? _____ Yes _____ No

    If "Yes", submit the ground water monitoring data with this permit application Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data

12. **Land Application Site Information.**

    (Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period, complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

    a Provide a general location map for each county which clearly indicates the location of all the land application sites

    b For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions) Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones

    c In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U S Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites The address and phone number of FWS are provided below

    U S Fish and Wildlife Service
    Virginia Field Office
    P O Box 480
    White Marsh, VA 23183
    TEL (804) 693-6694

    Provide a copy of the notification letter with this application form

    d Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked (A USDA-SCS soil survey map should be provided, if available)

    Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type) Complex associations may be described as a range of characteristics Soil descriptions shall include as a minimum the following information

    1) Soil symbol
    2) Soil series, textural phase and slope range
    3) Depth to seasonal high water table
    4) Depth to bedrock
    5) Estimated soil productivity group (for the proposed crop rotation)

    Item e - h are required for sites receiving frequent application of sewage sludge

    e In order to verify the information provided in item d, characterize the soil at each land application site Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type) Soil descriptions shall include as a minimum the following information

    1) Soil symbol
    2) Soil series, textural phase and slope range
    3) Depth to seasonal high water table
    4) Depth to bedrock

5) Estimated soil productivity group (for the proposed crop rotation)

f Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters

Soil Organic Matter (%)	_____
Soil pH (std units)	_____
Cation Exchange Capacity (meq/100g)	_____
Total Nitrogen (ppm)	_____
Organic Nitrogen (ppm)	_____
Ammonia Nitrogen (ppm)	_____
Nitrate Nitrogen (ppm)	_____
Available Phosphorus (ppm)	_____
Exchangeable Potassium (mg/100g)	_____
Exchangeable Sodium (mg/100g)	_____
Exchangeable Calcium (mg/100g)	_____
Exchangeable Magnesium (mg/100g)	_____
Arsenic (ppm)	_____
Cadmium (ppm)	_____
Copper (ppm)	_____
Lead (ppm)	_____
Mercury (ppm)	_____
Molybdenum (ppm)	_____
Nickel (ppm)	_____
Selenium (ppm)	_____
Zinc (ppm)	_____
Manganese (ppm)	_____
Particle Size Analysis or USDA Textural Estimate (%)	_____

g Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers Describe any specialized agronomic management practices which may be required as a result of high soil pH If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary

h Using a narrative format and referencing any related charts, describe the proposed cropping system Show how the crop rotation and management will be coordinated with the design of the land application system Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application

SEWAGE SLUDGE APPLICATION AGREEMENT

This sewage sludge application agreement is made on this date _____ between _____, referred to here as "landowner", and _____, referred to here as the "Permittee"

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land") Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number _____ which is held by the Permittee

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction

1 Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge,

2 Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil,

3 Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil,

4 Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge,

5 Animals shall not be grazed on the land for 30 days after application of sewage sludge,

6 Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board,

7 Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge,

8 Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge

9 Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0 5 kilograms/hectare (0 45 pounds/acre)

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and specifically prior to any particular application to landowner's land This agreement may be terminated by either party upon written notice to the address specified below

Landowner	Permittee
_____	_____
Signature	Signature
_____	_____
Mailing Address	Mailing Address

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units. NA

a Unit name or number

_____

b Unit location

i Street or Route# _____

County _____

City or Town _____ State _____ Zip _____

ii Latitude _____ Longitude _____

Method of latitude/longitude determination

_____ USGS map _____ Filed survey _____ Other

c Topographic map Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location

d Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period

_____ dry metric tons

e Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit

_____ dry metric tons

f Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec?

_____ Yes _____ No If "Yes", describe the liner or attach a description

_____

_____

g Does the active sewage sludge unit have a leachate collection system? _____ Yes _____ No

If "Yes", describe the leachate collection system or attach a description Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal

_____

_____

_____

h If you answered "No" to either f or g, answer the following

Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? _____ Yes _____ No If "Yes", provide the actual distance in meters _____

i Remaining capacity of active sewage sludge unit, in dry metric tons _____ dry metric tons

Anticipated closure date for active sewage sludge unit, if known _____ (MM/DD/YYYY)

Provide with this application a copy of any closure plan developed for this active sewage sludge unit

2. Sewage Sludge from Other Facilities.

Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? _____ Yes _____ No

If "Yes", provide the following information for each such facility, attach additional sheets as necessary

a Facility name _____

b Facility contact _____

Title _____

Phone (_____) _____

c Mailing address

Street or P O Box _____

City or Town _____ State _____ Zip _____

d List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices

Permit Number	Type of Permit
_____	_____
_____	_____

e Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?
_____ Class A _____ Class B _____ Neither or unknown

f Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge

_____

_____

_____

g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11 5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None or unknown

h Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge

_____

_____

_____

i Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above

_____

_____

_____

3. Vector Attraction Reduction.

a Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?

_____ Option 9 (Injection below land surface)
_____ Option 10 (Incorporation into soil within 6 hours)
_____ Option 11 (Covering active sewage sludge unit daily)

b Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge _____

_____

_____

4. Ground Water Monitoring.

a Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? _____ Yes _____ No

If "Yes", provide a copy of available ground water monitoring data Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data

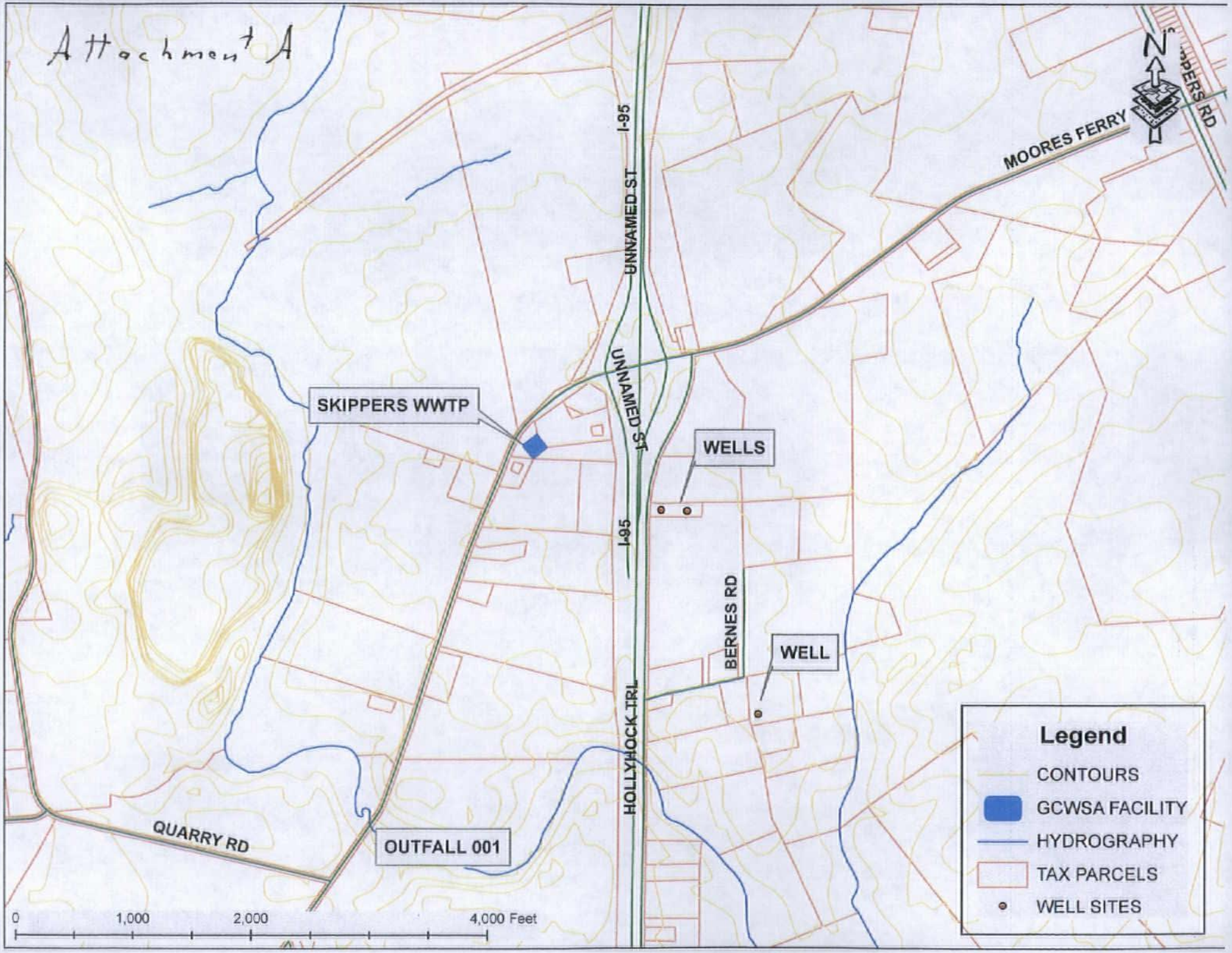
b Has a ground water monitoring program been prepared for this active sewage sludge unit? _____ Yes _____ No If "Yes", submit a copy of the ground water monitoring program with this application

c Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? _____ Yes _____ No

If "Yes", submit a copy of the certification with this application

5. Site-Specific Limits.

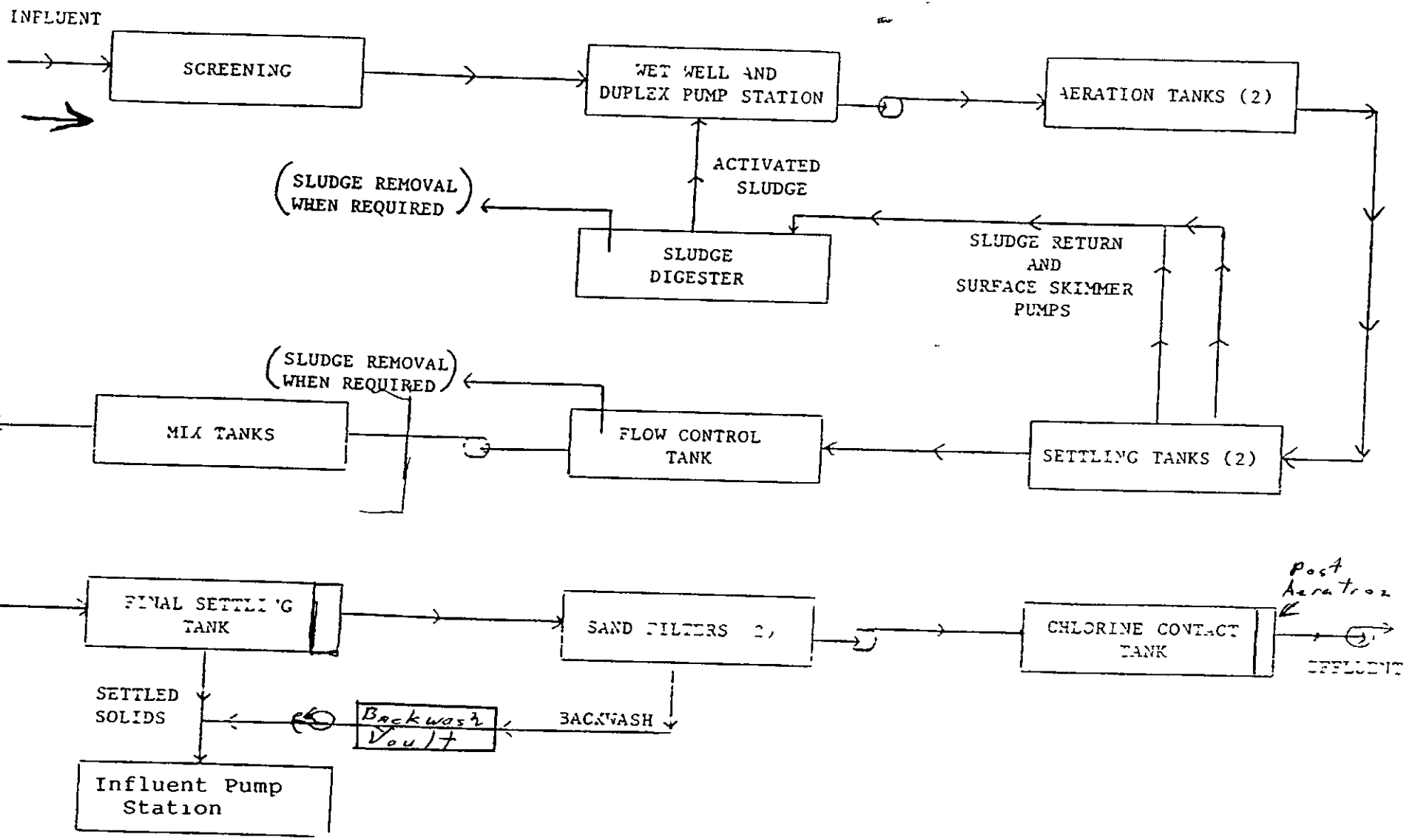
Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit? _____ Yes _____ No If "Yes", submit information to support the request for site-specific pollutant limits with this application


Attachment A
SKIPPERS WWTP
WELLS
WELL
OUTFALL 001
QUARRY RD
BERNES RD
HOLLYHOCK TRL
UNNAMED ST
I-95
MOORES FERRY
SKIPPERS RD
N
0
1,000
2,000
4,000 Feet
Legend
CONTOURS
GCWSA FACILITY
HYDROGRAPHY
TAX PARCELS
WELL SITES

MOORES FERRY RD

ATTACHMENT B

TERTIARY TREATMENT FLOW DIAGRAM



= PIPED FLOW

= CHANNEL FLOW

ATTACHMENT C

Section A General Information, Item 8 Pollutant Concentrations

Sludge from the digester is hauled to the Three Creek Wastewater Treatment Plant, it is dumped into the head works of the plant and goes thru the complete operation The sludge that is hauled from skippers to three Creek becomes part of the sludge bed in the clarifiers at the Three Creek Plant and is then removed and digested at that facility The sludge from this facility becomes part of the solids that are sent to the landfill and become part of the material tested at Three Creek We did not do any sampling of the Skippers sludge that was hauled to the Three Creek WWTF

ATTACHMENT D

SECTION B Generation of Sewage Sludge or Preparation of a Material Derived From Sewage Sludge, Item 6 k

Sludge will be hauled easterly from the Skippers Plant along Moore's Ferry Road to the Interstate 95 interchange, north bound on ramp It will them proceed North on I95 to the Exit 13 interchange, Otterdam Road , then proceed west on Otterdam Road to Moonlight Road turn left on Moonlight road and end at the Three Creek WWTF

Sludge is hauled Monday thru Friday between the hours of 8 am and 5 p m

ORG,

ATTACHMENT A
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY CRITERIA MONITORING

CASRN#	CHEMICAL	EPA ANALYSIS NO	QUANTIFICATION LEVEL[1]	REPORTING RESULTS	SAMPLE TYPE[2]	SAMPLE FREQUENCY
METALS						
7440-36-0	Antimony, dissolved	200 8	0 0002mg/l	<0 0002mg/l	G or C	1/5 YR
7440-38-2	Arsenic, dissolved	3113B	0 0002mg/l	0 0003mg/l	G or C	1/5 YR
7440-39-3	Barium, dissolved	(3)	200	Not Required	G or C	1/5 YR (PWS)
7440-43-9	Cadmium, dissolved	3113B	0 0002 mg/L	<0 0002 mg/L	G or C	1/5 YR
16065-83-1	Chromium III, dissolved [8]	200 7	0 003mg/l	0 001mg/l	G or C	1/5 YR
18540-29-9	Chromium VI, dissolved [8]	3500Cr B	0 003mg/l	<0 003mg/l	G or C	1/5 YR
7440-50-8	Copper, dissolved	3113B	0 0002 mg/L	0 0028 mg/L	G or C	1/5 YR
7439-89-6	Iron, dissolved	(3)	30	Not Required	G or C	1/5 YR (PWS)
7439-92-1	Lead, dissolved	3113B	0 0002 mg/L	<0 0002 mg/L	G or C	1/5 YR
7439-96-5	Manganese, dissolved	(3)	5 0	Not Required	G or C	1/5 YR (PWS)
7439-97-6	Mercury, dissolved	245 1	0 0002 mg/L	<0 0002mg/l	G or C	1/5 YR
7440-02-0	Nickel, dissolved	3113B	0 0002 mg/L	0 0009 mg/l	G or C	1/5 YR
7782-49-2	Selenium, Total Recoverable	3113B	0 0002 mg/L	<0 0002 mg/l	G or C	1/5 YR (FW)
7782-49-2	Selenium, dissolved	(3)	2 0	Not Required	G or C	1/5 YR (SW)
7440-22-4	Silver dissolved	3113B	0 00005 mg/l	<0 00005 mg/l	G or C	1/5 YR
7440-28-0	Thallium, dissolved	200 7	0 005mg/l	<0 005mg/l	G or C	1/5 YR
7440-66-6	Zinc, dissolved	200 7	0 0025mg/l	0 159mg/l	G or C	1/5 YR
PESTICIDES/PCB'S						
309-00-2	Aldrin	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
57-74-9	Chlordane	608	0 2ug/l	<0 2ug/l	G or C	1/5 YR
2921-88-2	Chlorpynfos (synonym = Dursban)	622	0 2ug/l	<0 2ug/l	G or C	1/5 YR
72-54-8	DDD	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
72-55-9	DDE	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
50-29-3	DDT	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
8065-48-3	Demeton	614	1ug/l	<1ug/l	G or C	1/5 YR
333-41-5	Diazinon	614	1ug/l	<1ug/l	G or C	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO	QUANTIFICATION LEVEL[1]	REPORTING RESULTS	SAMPLE TYPE[2]	SAMPLE FREQUENCY
60-57-1	Dieldrin	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
959-98-8	Alpha-Endosulfan	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
33213-65-9	Beta-Endosulfan	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
1031-07-8	Endosulfan Sulfate	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
72-20-8	Endrin	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
7421-93-4	Endrin Aldehyde	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
86-50-0	Guthion	622	1ug/l	<1ug/l	G or C	1/5 YR
76-44-8	Heptachlor	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
1024-57-3	Heptachlor Epoxide	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
319-84-6	Hexachlorocyclohexane Alpha-BHC	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
319-85-7	Hexachlorocyclohexane Beta-BHC	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
58-89-9	Hexachlorocyclohexane Gamma-BHC or Lindane	608	0 05ug/l	<0 05ug/l	G or C	1/5 YR
143-50-0	Kepone	8270D	5ug/l	<5ug/l	G or C	1/5 YR
121-75-5	Malathion	614	1ug/l	<1ug/l	G or C	1/5 YR
72-43-5	Methoxychlor	8081B	0 05ug/l	<0 05ug/l	G or C	1/5 YR
2385-85-5	Mirex	8081B	0 05ug/l	<0 05ug/l	G or C	1/5 YR
56-38-2	Parathion	614	1ug/l	<1ug/l	G or C	1/5 YR
1336-36-3	PCB Total	608	0 5ug/l	<0 5ug/l	G or C	1/5 YR
8001-35-2	Toxaphene	608	0 5ug/l	<0 5ug/l	G or C	1/5 YR
BASE NEUTRAL EXTRACTABLES						
83-32-9	Acenaphthene	625	5ug/l	<5ug/l	G or C	1/5 YR
120-12-7	Anthracene	625	5ug/l	<5ug/l	G or C	1/5 YR
92-87-5	Benzidine	625	5ug/l	<5ug/l	G or C	1/5 YR
56-55-3	Benzo (a) anthracene	625	5ug/l	<5ug/l	G or C	1/5 YR
205-99-2	Benzo (b) fluoranthene	625	5ug/l	<5ug/l	G or C	1/5 YR
207-08-9	Benzo (k) fluoranthene	625	5ug/l	<5ug/l	G or C	1/5 YR
50-32-8	Benzo (a) pyrene	625	5ug/l	<5ug/l	G or C	1/5 YR
111-44-4	Bis 2-Chloroethyl Ether	625	5ug/l	<5ug/l	G or C	1/5 YR
108-60-1	Bis 2-Chloroisopropyl Ether	625	5ug/l	<5ug/l	G or C	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO	QUANTIFICATION LEVEL[1]	REPORTING RESULTS	SAMPLE TYPE[2]	SAMPLE FREQUENCY
85-68-7	Butyl benzyl phthalate	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
91-58-7	2-Chloronaphthalene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
218-01-9	Chrysene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
53-70-3	Dibenz(a h)anthracene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
84-74-2	Dibutyl phthalate (synonym = Di-n-Butyl Phthalate)	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
95-50-1	1 2-Dichlorobenzene	624	5 ug/L	< 5 ug/L	G or C	1/5 YR
541-73-1	1,3-Dichlorobenzene	624	5 ug/L	< 5 ug/L	G or C	1/5 YR
106-46-7	1,4-Dichlorobenzene	624	5 ug/L	< 5 ug/L	G or C	1/5 YR
91-94-1	3,3-Dichlorobenzidine	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
84-66-2	Diethyl phthalate	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
117-81-7	Bis-2-ethylhexyl phthalate	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
131-11-3	Dimethyl phthalate	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
121-14-2	2,4-Dinitrotoluene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
122-66-7	1,2-Diphenylhydrazine	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
206-44-0	Fluoranthene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
86-73-7	Fluorene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
118-74-1	Hexachlorobenzene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
87-68-3	Hexachlorobutadiene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
77-47-4	Hexachlorocyclopentadiene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
67-72-1	Hexachloroethane	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
193-39-5	Indeno(1,2 3-cd)pyrene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
78-59-1	Isophorone	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
98-95-3	Nitrobenzene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
62-75-9	N-Nitrosodimethylamine	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
621-64-7	N-Nitrosodi-n-propylamine	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
86-30-6	N-Nitrosodiphenylamine	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
129-00-0	Pyrene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR
120-82-1	1,2,4-Trichlorobenzene	625	5 ug/L	< 5 ug/L	G or C	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO	QUANTIFICATION LEVEL[1]	REPORTING RESULTS	SAMPLE TYPE[2]	SAMPLE FREQUENCY
VOLATILES						
107-02-8	Acrolein	624	50 ug/l	< 50 ug/l	G	1/5 YR
107-13-1	Acrylonitrile	624	50 ug/l	< 50 ug/l	G	1/5 YR
71-43-2	Benzene	624	5 ug/L	< 5 ug/L	G	1/5 YR
75-25-2	Bromoform	624	5 ug/L	< 5 ug/L	G	1/5 YR
56-23-5	Carbon Tetrachloride	624	5 ug/L	< 5 ug/L	G	1/5 YR
108-90-7	Chlorobenzene (synonym = monochlorobenzene)	624	5 ug/L	< 5 ug/L	G	1/5 YR
124-48-1	Chlorodibromomethane	624	5 ug/L	< 5 ug/L	G	1/5 YR
67-66-3	Chloroform	624	5 ug/L	< 5 ug/L	G	1/5 YR
75-09-2	Dichloromethane (synonym = methylene chloride)	624	5 ug/L	< 5 ug/L	G	1/5 YR
75-27-4	Dichlorobromomethane	624	5 ug/L	< 5 ug/L	G	1/5 YR
107-06-2	1,2-Dichloroethane	624	5 ug/L	< 5 ug/L	G	1/5 YR
75-35-4	1 1-Dichloroethylene	624	5 ug/L	< 5 ug/L	G	1/5 YR
156-60-5	1,2-trans-dichloroethylene	624	5 ug/L	< 5 ug/L	G	1/5 YR
78-87-5	1,2-Dichloropropane	624	5 ug/L	< 5 ug/L	G	1/5 YR
542-75-6	1 3-Dichloropropene	624	5 ug/L	< 5 ug/L	G	1/5 YR
100-41-4	Ethylbenzene	624	5 ug/L	< 5 ug/L	G	1/5 YR
74-83-9	Methyl Bromide	624	5ug/l	<5ug/l	G	1/5 YR
79-34-5	1,1,2,2-Tetrachloroethane	624	5 ug/L	< 5 ug/L	G	1/5 YR
127-18-4	Tetrachloroethylene	624	5 ug/L	< 5 ug/L	G	1/5 YR
10-88-3	Toluene	624	5 ug/L	< 5 ug/L	G	1/5 YR
79-00-5	1,1,2-Trichloroethane	624	5 ug/L	< 5 ug/L	G	1/5 YR
79-01-6	Trichloroethylene	624	5 ug/L	< 5 ug/L	G	1/5 YR
75-01-4	Vinyl Chloride	624	5 ug/L	< 5 ug/L	G	1/5 YR
RADIONUCLIDES						
	Beta Particle & Photon Activity (mrem/yr)	(4)	(5)	Not Required	G or C	1/5 YR (PWS)
	Gross Alpha Particle Activity (pCi/L)	(4)	(5)	Not Required	G or C	1/5 YR (PWS)
	Combined Radium 226 and 228	(4)	(5)	Not Required	G or C	1/5 YR (PWS)
	Uranium	(4)	(5)	Not Required	G or C	1/5 YR (PWS)

CASRN#	CHEMICAL	EPA ANALYSIS NO	QUANTIFICATION LEVEL[1]	REPORTING RESULTS	SAMPLE TYPE[2]	SAMPLE FREQUENCY
ACID EXTRACTABLES (6)						
95-57-8	2-Chlorophenol	625	5ug/l	<5ug/l	G or C	1/5 YR
120-83-2	2,4 Dichlorophenol	625	5ug/l	<5ug/l	G or C	1/5 YR
105-67-9	2 4 Dimethylphenol	625	5ug/l	<5ug/l	G or C	1/5 YR
51-28-5	2,4-Dinitrophenol	625	20ug/l	<20ug/l	G or C	1/5 YR
534-52-1	2-Methyl-4,6-Dinitrophenol 4,6 Dinitro-o-cresol	625	5ug/l	<5ug/l	G or C	1/5 YR
25154-52-3	Nonylphenol	D7065-06	5ug/l	<5ug/l	G or C	1/5 YR
87-86-5	Pentachlorophenol	625	10ug/l	<10ug/l	G or C	1/5 YR
108-95-2	Phenol	625	5ug/l	<5ug/l	G or C	1/5 YR
88-06-2	2,4,6-Trichlorophenol	625	5ug/l	<5ug/l	G or C	1/5 YR
MISCELLANEOUS						
776-41-7	Ammonia as NH3-N	4500NH3D	0 10MG/L	42 9MG/L	C	1/5 YR
16887-00-6	Chlorides	4500Cl C	1MG/L	145MG/L	C	1/5 YR (FW and PWS)
7782-50-5	Chlorine, Total Residual	4500Cl C	1 MG/L	1 5 Mg/l	G	1/5 YR
57-12-5	Cyanide, Free	ASTM D 4282	10 0	10 ug/L	G	1/5 YR
94-75-7	2,4 Dichlorophenoxy acetic acid (synonym = 2,4-D)	(4)	(5)	Not Required	G or C	1/5 YR (PWS)
1746-01-6	Dioxin (2,3,7,8-tetrachlorodibenzo-p-dioxin) (ppq)	1613	0 00001	Not Required	G or C	1/5 YR [Paper Mills & Oil Refineries]
N/A	*E coli* / *Enterococcus* (N/CML)	Colilert	1 mpn/100ml	0 mpn/100ml	G	1/5 YR
N/A	Foaming Agents (as MBAS)	(4)	(5)	Not Required	G	1/5 YR (PWS)
18496-25-8	Dissolved Sulfide	4500-S2 F	0 2MG/L	<0 2MG/L	G	1/5 YR
14797-55-8	Nitrate as N (mg/L)	(4)	(5)	Not Required	C	1/5 YR (PWS)
N/A	Sulfate (mg/L)	(4)	(5)	Not Required	C	1/5 YR (PWS)
N/A	Total Dissolved Solids (mg/L)	(4)	(5)	Not Required	C	1/5 YR (PWS)
60-10-5	Tributyltin [7]	NBSIR 85-329	0 03ug/l	<0 03ug/l	G or C	1/5 YR
93-72-1	2-(2,4,5-Trichlorophenoxy) propionic acid (synonym = Silvex)	(4)	(5)	Not Required	G or C	1/5 YR (PWS)
471-34-1	Hardness (mg/L as $CaCO_3$)	2340B	0 331mg/l	149mg/l	G or C (10)	1/5 YR

James L Warf, Superintendent of Public Utilities
Name of Principal Exec Officer or Authorized Agent/Title

4/29/2013
Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations See 18 U S C Sec 1001 and 33 U S C Sec 1319 (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years)

FOOTNOTES

(1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis Target values are not wasteload allocations or effluent limitations The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows

Units for the quantification level are micrograms/liter unless otherwise specified

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained

(2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes Substances specified with "grab" sample type shall only be collected as grabs The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection

C = Composite = A 24-hour **(PW - Revise as required to require same composite duration as BOD_5)** composite unless otherwise specified The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period

(3) A specific analytical method is not specified, however a target value for each metal has been established An appropriate method to meet the target value shall be selected from the following list of EPA methods (or any approved method presented in 40 CFR Part 136) If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL]

Parameter	Analytical Method
Antimony	1638, 1639
Arsenic	1632
Chromium[8]	1639
Cadmium	1637, 1638, 1639, 1640
Chromium VI	1639
Copper	1638, 1640
Lead	1637, 1638, 1640
Mercury	1631

Nickel	1638, 1639, 1640
Selenium	1638, 1639
Silver	1638
Zinc	1638, 1639
Free Cyanide	*ASTM D4282-02, D7237-10, OIA 1677-09
Nonylphenol	*ASTM D7065-06

**Currently proposed EPA methods*

(4) Any approved method presented in 40 CFR Part 136

(5) The QL is at the discretion of the permittee For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136

(6) Testing for phenols requires continuous extraction

(7) Analytical Methods NBSR 85-3295 or DEQ's approved analysis for Tributyltin may also be used [See A Manual for the Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996]

(8) Both Chromium III and Chromium VI may be measured by the total chromium analysis If the result of the total chromium analysis is less than or equal to the lesser of the Chromium III or Chromium VI method QL, the results for both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL]

(9) The lab may use SW846 Method 8270D provided the lab has an Initial Demonstration of Capability, has passed a PT for Kepone, and meets the acceptance criteria for Kepone as given in Method 8270D

(10) The sample type for Hardness (as $CaCO_3$) shall match the sample type selected for Dissolved Metals

HRSD
Cleaning wastewater every day for a better Bay

1432 Air Rail Avenue Virginia Beach VA 23455-3002 • 757 460 4205 • Fax 757 460 6586 • www hrsd com

08/02/12 - Greensville County - Free Cyanide

This analytical report contains 3 pages

Chip Brown
3 Creek WWTP
428 Moonlight Road
Emporia, VA 23847

threecreek@telpage net

AUG - 9 2012

Date Sent 08/06/12

HRSD CEL, Central Environmental Laboratory is VELAP/NELAC accredited by
DCLS, the Division of Consolidated Laboratory Services

VA Laboratory ID# 460011
Effective Date June 15, 2012
Expiration Date June 14, 2013
Certificate # 1612

Analytical test results meet all requirements of VELAP/NELAC unless otherwise noted under the analysis

Test results relate only to the sample tested Clients should be aware that a critical step in chemical or microbiological analysis is the collection of the sample

If you have any questions concerning this report, please do not hesitate to contact
Robin Parnell, CEL Laboratory Manager at (757) 460-4203
rparnell@hrsd com
Cindi Reno, CEL Administrative Assistant at (757) 460-4205
creno@hrsd com

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CENTRAL ENVIRONMENTAL LABORATORY
ANALYTICAL REPORT

Project	**Greensville County - Three Creeks WWTP**
Customer Sample ID	**Final Effluent**
Project Code	**GC_TC**
Sample Point	**FNE**
Sample Date	**08/02/12**

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Free Cyanide	ASTM D 4282	ug/L	<10	10	AMOORE	08/03/12	08 05

Notes

[1] *Report Limit is lowest concentration at which quantitation is demonstrated*

Authorization _____
Lab Manager / QA Manager

Date 8/6/12

HRSD
Cleaning wastewater every day for a better Bay

CENTRAL ENVIRONMENTAL LABORATORY
1432 AIR RAIL AVENUE
VIRGINIA BEACH VA 23455
TEL 757-460-4214
FAX 757-460-6586

CHAIN OF CUSTODY

PROJECT NAME/CODE ____Greensville County_____

ANALYSES REQUESTED, CGN & NUMBER OF CONTAINERS

Project in Lims? Yes _____ No __X____

HRSD Use Only

CUSTOMER SAMPLE ID	HRSD Use Only: PROJECT CODE	HRSD Use Only: SAMPLE POINT	DATE	TIME	SAMPLED BY	MATRIX	SAMPLE TYPE	Free Cyanide (4) (4N - 4)							HRSD Use Only: Presv'd Checked	HRSD Use Only: CONT COUNT
Final Effluent	GC_TC	FNE	8-2-12	1230	CB	L	G	2							✓	2

COMMENTS

For Ground Water Use Only
Temp Blank 1 _____ °C
Temp Blank 2 _____ °C

Relinquished by / Signature	Date/Time 8-2-12 1240
Received by / Signature	Date/Time 8/2/12 1240
Relinquished by / Signature	Date/Time 8/2/12 1430
Received by / Signature	Date/Time 8/2/12 1430
Relinquished by / Signature	Date/Time
Received by / Signature	Date/Time
Relinquished by / Signature	Date/Time
Received by / Signature	Date/Time

Temp Requirement

Where required submitted samples were transported in coolers maintained at ≤ 6 °C

Yes ✓ No _____

Int CH 7/11

***Preservatives**

- *Hg Metals (pH<2 - HNO3) (Clean metals check in section)
- *O&G (pH<2 - HCl check in section) & store ≤ 6 °C
- CN (pH>12 - NaOH) & store ≤ 6 °C
- *Sulfide (pH>9 - NaOH+ZnAc) & store ≤ 6 °C
- *Micro ($Na_2S_2O_3$ + EDTA) & store ≤ 10 °C
- *COD NUT Phenols (pH<2 - H_2SO_4) & store ≤ 6 °C
- *TOC (pH<2 - H_3PO_4) & store ≤ 6 °C
- *BOD TSS TVSS Turbidity Surfactant Sulfate store ≤ 6 °C
- *NUT Non Acidified Conductivity Organics store ≤ 6 °C
- *Cr (VI) (pH 9.3 - 9.7 - $(NH_4)_2SO_4$) & store ≤ 6 °C

All sample(s) met proper *preservation requirements Yes ✓ No _____ Int CH 7/11

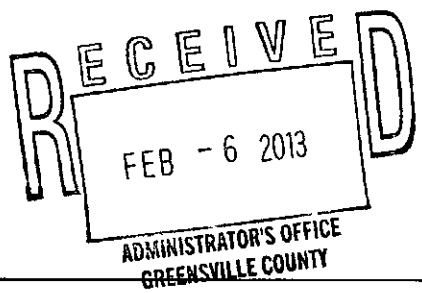
Sample Type C=Composite G=Grab Matrix L= Liquid S = Solid CGN Container Group Number

NOTE ALL APPLICABLE INFORMATION MUST BE COMPLETED PRIOR TO ACCEPTANCE

REPORT OF ANALYSIS

CLIENT Greensville County Water and Sewer
ATTN Chip Brown
ADDRESS 1781 Greensville County Circle
Emporia, VA 23847
PHONE (434) 634-6094
FAX (434) 348-4257

Special Notes
RE SKIPPERS - ATTACHMENT A



SAMPLE COLLECTED BY CLIENT
GRAB COLLECTION DATE/TIME
01/08/13@1000

COMPOSITE COLLECTION
Start Date Time
End Date Time

PICK UP BY REED - TS
SAMPLE RECEIPT
Date 1/9/13 Time 1510
NUMBER OF CONTAINERS 24
SAMPLE CONDITION ☑ Good ☐ Other (See C-O-C)
REPORT NO 13-00568 8 11

SAMPLE ID OUTFALL
SAMPLE NO 13-00568

Parameter	Method Number	JRA QL	Result	Unit	Analyst	Date	Time
Volatiles							
Bromomethane	624	5	< 5	ug/L	TAG	1/17/13	0440
Vinyl Chloride	624	5	< 5	ug/L	TAG	1/17/13	0440
Methylene Chloride/Dichloromethane	624	5	< 5	ug/L	TAG	1/17/13	0440
1,1-Dichloroethene	624	5	< 5	ug/L	TAG	1/17/13	0440
Chloroform	624	5	< 5	ug/L	TAG	1/17/13	0440
1,2-Dichloroethane	624	5	< 5	ug/L	TAG	1/17/13	0440
Carbon Tetrachloride	624	5	< 5	ug/L	TAG	1/17/13	0440
Bromodichloromethane	624	5	< 5	ug/L	TAG	1/17/13	0440
1,1,2,2-Tetrachloroethane	624	5	< 5	ug/L	TAG	1/17/13	0440
1,2-Dichloropropane	624	5	< 5	ug/L	TAG	1/17/13	0440
Trichloroethene	624	5	< 5	ug/L	TAG	1/17/13	0440
Dibromochloromethane	624	5	< 5	ug/L	TAG	1/17/13	0440
1,1,2-Trichloroethane	624	5	< 5	ug/L	TAG	1/17/13	0440
Benzene	624	5	< 5	ug/L	TAG	1/17/13	0440
Bromoform	624	5	< 5	ug/L	TAG	1/17/13	0440
Tetrachloroethene	624	5	< 5	ug/L	TAG	1/17/13	0440
Toluene	624	5	< 5	ug/L	TAG	1/17/13	0440
Chlorobenzene/Monochlorobenzene	624	5	< 5	ug/L	TAG	1/17/13	0440
Ethylbenzene	624	5	< 5	ug/L	TAG	1/17/13	0440
Acrolein	624	50	< 50	ug/L	TAG	1/17/13	0440
Acrylonitrile	624	50	< 50	ug/L	TAG	1/17/13	0440
1,3-Dichloropropene(cis & trans)	624	5	< 5	ug/L	TAG	1/17/13	0440
1,2-Dichlorobenzene	624	5	< 5	ug/L	TAG	1/17/13	0440
1,3-Dichlorobenzene	624	5	< 5	ug/L	TAG	1/17/13	0440
1,4-Dichlorobenzene	624	5	< 5	ug/L	TAG	1/17/13	0440

James R Reed & Associates
770 Pilot House Drive, Newport News, VA 23606
(757) 873-4703 ● Fax (757) 873-1498

VELAP# 460013
EPA# VA00015

REPORT OF ANALYSIS

SAMPLE ID OUTFALL
SAMPLE NO 13-00568

Parameter	Method Number	JRA QL	Result	Unit	Analyst	Date	Time
Volatiles							
trans-1,2-Dichloroethene	624	5	< 5	ug/L	TAG	1/17/13	0440
Semi-Volatiles							
Hexachloroethane	625	5	< 5	ug/L	CLH	1/22/13	0053
1,2,4-Trichlorobenzene	625	5	< 5	ug/L	CLH	1/22/13	0053
Hexachlorobutadiene	625	5	< 5	ug/L	CLH	1/22/13	0053
Hexachlorocyclopentadiene	625	5	< 5	ug/L	CLH	1/22/13	0053
2-Chloronaphthalene	625	5	< 5	ug/L	CLH	1/22/13	0053
Hexachlorobenzene	625	5	< 5	ug/L	CLH	1/22/13	0053
N-Nitrosodimethylamine	625	5	< 5	ug/L	CLH	1/22/13	0053
Bis(2-chloroethyl) ether	625	5	< 5	ug/L	CLH	1/22/13	0053
Bis(2-chloroisopropyl) ether	625	5	< 5	ug/L	CLH	1/22/13	0053
N-Nitroso-di-n-propylamine	625	5	< 5	ug/L	CLH	1/22/13	0053
Nitrobenzene	625	5	< 5	ug/L	CLH	1/22/13	0053
Isophorone	625	5	< 5	ug/L	CLH	1/22/13	0053
Dimethyl phthalate	625	5	< 5	ug/L	CLH	1/22/13	0053
Acenaphthene	625	5	< 5	ug/L	CLH	1/22/13	0053
2,4-Dinitrotoluene	625	5	< 5	ug/L	CLH	1/22/13	0053
Fluorene	625	5	< 5	ug/L	CLH	1/22/13	0053
Diethyl phthalate	625	5	< 5	ug/L	CLH	1/22/13	0053
1,2,-Diphenylhydrazine	625	5	< 5	ug/L	CLH	1/22/13	0053
N-nitroso-di-phenylamine	625	5	< 5	ug/L	CLH	1/22/13	0053
Anthracene	625	5	< 5	ug/L	CLH	1/22/13	0053
di-n-Butyl phthalate	625	5	< 5	ug/L	CLH	1/22/13	0053
Fluoranthene	625	5	< 5	ug/L	CLH	1/22/13	0053
Pyrene	625	5	< 5	ug/L	CLH	1/22/13	0053
Benzidine	625	5	< 5	ug/L	CLH	1/22/13	0053
Butyl benzyl phthalate	625	5	< 5	ug/L	CLH	1/22/13	0053
Benzo[a]Anthracene	625	5	< 5	ug/L	CLH	1/22/13	0053
Chrysene	625	5	< 5	ug/L	CLH	1/22/13	0053
3,3-Dichlorobenzidine	625	5	< 5	ug/L	CLH	1/22/13	0053
Bis(2-ethylhexyl) phthalate	625	5	< 5	ug/L	CLH	1/22/13	0053
Benzo[b]Fluoranthene	625	5	< 5	ug/L	CLH	1/22/13	0053
Benzo[k]Fluoranthene	625	5	< 5	ug/L	CLH	1/22/13	0053
Benzo[a]Pyrene	625	5	< 5	ug/L	CLH	1/22/13	0053
Indeno[1,2,3-c,d]Pyrene	625	5	< 5	ug/L	CLH	1/22/13	0053
Dibenz[a,h]Anthracene	625	5	< 5	ug/L	CLH	1/22/13	0053
2-Chlorophenol	625	5	< 5	ug/L	CLH	1/22/13	0053
Phenol	625	5	< 5	ug/L	CLH	1/22/13	0053
2,4-Dimethylphenol	625	5	< 5	ug/L	CLH	1/22/13	0053
2,4-Dichlorophenol	625	5	< 5	ug/L	CLH	1/22/13	0053
2,4,6-Trichlorophenol	625	5	< 5	ug/L	CLH	1/22/13	0053
2,4-Dinitrophenol	625	20	< 20	ug/L	CLH	1/22/13	0053
4,6 Dinitro-o-cresol	625	5	< 5	ug/L	CLH	1/22/13	0053
Pentachlorophenol	625	10	< 10	ug/L	CLH	1/22/13	0053

James R Reed & Associates
770 Pilot House Drive, Newport News, VA 23606
(757) 873-4703 • Fax (757) 873-1498

VELAP# 460013
EPA# VA00015

REPORT OF ANALYSIS

SAMPLE ID OUTFALL
SAMPLE NO 13-00568

Parameter	Method Number	JRA QL	Result	Unit	Analyst	Date	Time
Semi-Volatiles							
Nonylphenol	D7065-06	5	< 5	ug/L	CLH	1/23/13	0438
Organophosphorus Pesticides							
Diazinon	614	1	< 1	ug/L	SDT	1/16/13	0836
Demeton	614	1	< 1	ug/L	SDT	1/16/13	0836
Malathion	614	1	< 1	ug/L	SDT	1/16/13	0836
Parathion	614	1	< 1	ug/L	SDT	1/16/13	0836
Organophosphorous Pesticides							
Chlorpyrifos	622	0 2	< 0 2	ug/L	SDT	1/16/13	0717
Guthion	622	1	< 1	ug/L	SDT	1/16/13	0717
Chlorinated Pesticides and PCBs							
Aldrin	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Dieldrin	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Chlordane	608	0 2	< 0 2	ug/L	SDT	1/16/13	0634
4,4-DDT	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
4,4-DDE	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
4,4-DDD	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Endosulfan I	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Endosulfan II	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Endosulfan sulfate	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Endrin	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Endrin aldehyde	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Heptachlor	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Heptachlor epoxide	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
BHC-Alpha	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
BHC-Beta	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
BHC-Gamma (Lindane)	608	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Toxaphene	608	0 5	< 0 5	ug/L	SDT	1/16/13	0634
Total Arochlors	608	0 5	< 0 5	ug/L	SDT	1/16/13	0634
Methoxychlor	8081B	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Mirex	8081B	0 05	< 0 05	ug/L	SDT	1/16/13	0634
Dissolved Zinc	200 7	0 0025	0 159	mg/L	EFA	1/16/13	1552
Dissolved Mercury	245 1	0 0002	< 0 0002	mg/L	LEF	1/22/13	1056
Dissolved Thallium	200 7	0 005	< 0 005	mg/L	EFA	1/21/13	1554
Dissolved Chromium	200 7	0 001	0 001	mg/L	EFA	1/21/13	1554
Ammonia	*4500NH3D	0 10	42 9	mg/L	JPD	1/15/13	1130
Tributyltin	NBSIR-85-329	0 03	<0 03	ug/L	HAM	1/23/13	0253
Kepone	8270D	5	< 5	ug/L	CLH	1/23/13	2210
Dissolved Chromium III	200 7	0 003	0 001	mg/L	EFA	1/21/13	1554
Dissolved Sulfide	*4500-S2 F	0 2	< 0 2	mg/L	LEF	1/11/13	1400
Chloride	*4500Cl C	1	145	mg/L	JPD	1/16/13	0800
Dissolved Antimony	200 8	0 0002	<0 0002	mg/L	MAC	1/18/13	1144
Hardness	*2340B	0 331	149	mg/L	EFA	1/21/13	1558
Dissolved Arsenic	3113B	0 0002	0 0003	mg/L	MAC	1/18/13	1144

James R Reed & Associates
770 Pilot House Drive, Newport News, VA 23606
(757) 873-4703 • Fax (757) 873-1498

VELAP# 460013
EPA# VA00015

REPORT OF ANALYSIS

SAMPLE ID OUTFALL
SAMPLE NO 13-00568

Parameter	Method Number	JRA QL	Result	Unit	Analyst	Date	Time
Dissolved Cadmium	3113B	0 0002	<0 0002	mg/L	MAC	1/18/13	1144
Dissolved Copper	3113B	0 0002	0 0028	mg/L	MAC	1/18/13	1144
Dissolved Lead	3113B	0 0002	<0 0002	mg/L	MAC	1/18/13	1144
Dissolved Nickel	3113B	0 0002	0 0009	mg/L	MAC	1/18/13	1144
Dissolved Silver	3113B	0 00005	<0 00005	mg/L	MAC	1/18/13	1144
Total Recoverable Selenium	3113B	0 0002	<0 0002	mg/L	MAC	1/18/13	1144

NOTES

JRA Quantification Level is the concentration of the lowest calibration standard above zero with a reliable signal

The results on this report relate only to the sample(s) provided for analysis

Results conform to NELAC standards, where applicable unless otherwise indicated

[Comments]

RE SKIPPERS - ATTACHMENT A

*SM 20 Ed
Dissolved Metals filtered and preserved in the field
Metals Method 200 8 and 3113B subcontracted to
Enviro Compliance to meet Permit QLs sample
concentrated 10-fold to achieve QL
Zinc concentrated to meet Permit QL
TBT subcontracted to Universal Laboratory
Endosulfan I = Endosulfan Alpha Endosulfan II = Endosulfan Beta
Bromodichloromethane = Dichlorobromomethane
Dibromochloromethane = Chlorodibromomethane
Bromomethane = Methyl bromide
2 Methyl-4,6 Dinitrophenol = 4,6 Dinitro-o-cresol
Total Arochlors = Total PCBs

Authorized By Elaine Claiborne

Elaine Claiborne, Laboratory Director

Date 31-Jan-13

James R Reed & Associates
770 Pilot House Drive, Newport News, VA 23606
(757) 873-4703 ● Fax (757) 873-1498

VELAP# 460013
EPA# VA00015

REPORT OF ANALYSIS

CLIENT Greensville County Water and Sewer
ATTN Chip Brown
ADDRESS 1781 Greensville County Circle
Emporia, VA 23847
PHONE (434) 634-6094
FAX (434) 348-4257

Special Notes
RE SKIPPERS - ATTACHMENT A

SAMPLE COLLECTED BY CLIENT
GRAB COLLECTION
Date 1/9/13 Time 1015
COMPOSITE COLLECTION
Start Date Time
End Date Time

PICK UP BY REED - TS
SAMPLE RECEIPT
Date 1/9/13 Time 1510
NUMBER OF CONTAINERS 1
SAMPLE CONDITION ☑ Good ☐ Other (See C-O-C)
REPORT NO 13-00569 8 08

SAMPLE ID OUTFALL
SAMPLE NO 13-00569

Parameter	Method Number	JRA QL	Result	Unit	Analyst	Date	Time
Dissolved Hexavalent Chromium	*3500Cr B	0 003	< 0 003	mg/L	EFA	1/10/13	0835

NOTES

JRA Quantification Level is the concentration of the lowest calibration standard above zero with a reliable signal

The results on this report relate only to the sample(s) provided for analysis

Results conform to NELAC standards, where applicable unless otherwise indicated

Filtered in the field

*SM 20 Ed

Authorized By Elaine Claiborne
Elaine Claiborne, Laboratory Director
Date 31-Jan-13

James R Reed & Associates
770 Pilot House Drive, Newport News, VA 23606
(757) 873-4703 • Fax (757) 873-1498

VELAP# 460013
EPA# VA00015

CHAIN OF CUSTODY

Company Name	Greensville County
Company Contact	Chip Brown
Telephone	434-634-6094
Results To	Chip Brown
Fax	434-348-4257
Address	428 Moonlight Road
	Emporia, Va 23847
Project ID	**Skippers - Attachment A**

ANALYSES REQUESTED

JRA ID # (13-)	Sample Type*	Sample Location	Composite Start Date	Composite Start Time	Composite End Date	Composite End Time	Grab Date	Grab Time	Total # of cont	A	B	C	D	E	F	G	H	I	J	K	L
Bottle ID										A	B	C	D	E	F	G	H	I	J	K	L
Preserv										2	2	1	1	1,11	1,3	1,12	1	2	2	1	1,3
										Dissolved Metals (SUB)*	Dissolved Metals**	Dissolved Hexavalent Cr (24 hour holding time)	Semivolatiles (608,622,614,625, Kepone)	Volatiles (624) (Headspace free)	Ammonia	Dissolved Sulfide (headspace free)***	TBT (SUB)	T Rec Se (subcontract)	Hardness	Chlorides	Nonylphenol
00568	WW	Outfall					1-8-13	1000	24	X	X	X	X	X	X	X	X	X	X	X	X
00569	WW	Outfall					1-9-13	1015	1			X									
										pH<2 HNO_3	pH<2 HNO_3				<0.5ppm Chlorine			pH<2 HNO_3	pH<2 HNO_3		

*WW= Wastewater, GW = Groundwater, DW - Drinking Water HW - Hazardous Waste OTHERS

Sampled By	[signature]	Date/Time 1-8-13	1000
Relinquished By	[signature]	Date/Time 1-9-13	1132
Received By	[signature]	Date/Time 1-9-13	1132
Relinquished By	[signature]	Date/Time 1-9-13	
Received By	Mendyhall	Date/Time 1-9-13	1510

1-9-13 1015
1-9-13 1133

Preservatives

1 = <6°C	6 = $Na_2S_2O_3$ + HCl	10=Ascorbic Acid + HCl
2 = HNO_3	7 = NaOH + ZnOAc	11=HCl
3 = H_2SO_4	8 = H_2SO_4 + FAS	12=Zinc Acetate + NaOH
4 = NaOH	9 = NH_4Cl	
5 = $Na_2S_2O_3$		

___for Compliance
X Not for Compliance

***Dissolved Metals** Filtration Date 1-8-13 Time 1030 Initials JK
Subcontract Sb,As,Cd,Cu,Pb,Ni,Ag
****Dissolved Metals In House** Cr, Cr III, Hg, Tl, Zn (concentrate)
*****Add AlCl3 to sample after collection and invert vigorously to mix**

Arrival Temp 1.9 °C

added additional HNO_3 to samples 13-00568 E, S upon arrival to lab mpl 13-00568-A

JAMES R REED and ASSOCIATES (757) 873-4703, FAX (757) 873-1498
770 Pilot House Drive, Newport News, VA 23606

REPORT OF ANALYSIS

CLIENT	Greensville County Water and Sewer
ATTN	Chip Brown
ADDRESS	1781 Greensville County Circle
	Emporia, VA 23847
PHONE	(434) 634-6094
FAX	(434) 348-4257

Special Notes
RE SKIPPERS MONTHLY

SAMPLE COLLECTED BY CLIENT
GRAB COLLECTION
Date 11/14/12 Time 1000
COMPOSITE COLLECTION
Start Date Time
End Date Time

PICK UP BY REED - LL
SAMPLE RECEIPT
Date 11/14/12 Time 1340
NUMBER OF CONTAINERS 2
SAMPLE CONDITION ☑ Good ☐ Other (See C-O-C)
REPORT NO 12-18273 10 16

SAMPLE ID 001 EFF
SAMPLE NO 12-18273

Parameter	Method Number	JRA QL	Result	Unit	Analyst	Date	Time
E Coli-Colilert	Colilert	1	<1	MPN/100mL	KDG	11/14/12	1525
Ammonia	*4500NH3D	0 10	0 69	mg/L	PL	11/20/12	0900

NOTES

JRA Quantification Level is the concentration of the lowest calibration standard above zero with a reliable signal

The results on this report relate only to the sample(s) provided for analysis

Results conform to NELAC standards, where applicable, unless otherwise indicated

*SM 20 Ed

Authorized By Elaine Claiborne

Elaine Claiborne, Laboratory Director

Date 26-Nov-12

James R. Reed & Associates
770 Pilot House Drive, Newport News, VA 23606
(757) 873-4703 ● Fax (757) 873-1498

VELAP# 460013
EPA# VA00015

Skippers WWTF

Month		Nov 12										Once May-Oct		Once Nov-Apr		Once May-Oct		Once Nov-Apr		May-Nov											Process			
		FLOW			PH			DO				BOD				TSS				Amm as N		Contact CL2			Final CL2				EColi	Aer #1		Aer #2	
DATE	DAY	MGD	TEMP	WATER TEMP	CT	AT	SU	CT	AT	MG/L	BOD MG/L	WK AVE	BOD G/DAY	WK AVE	TSS MG/L	WK AVE	TSS G/DAY	WK AVE	AM MG/L	WK AVE	CT	AT	MG/L	CT	AT	UG/L	WK AVE	N/ CML	DO	PH	DO	PH
	SU											Inc Wk		Inc Wk		Inc Wk		Inc Wk		Inc Wk							Inc Wk						
	M																																
	TU																																
	W																																
1	T	013	50	11			69			101													12			00			66	60	73	62
2	F	012	48	10			69			102													11			00			64	70	74	71
3	S	013	34	9			72			106													18			00			67	69	75	69
4	SU	012	44	10			72			100													13			00			61	69	71	69
5	M	011	48	10			73			108													10			00			69	68	77	68
6	TU	012	38	9			72			109													11			00			65	69	71	69
7	W	016	42	8			72			116													11			00	0	0	NS	69	NS	69
8	T	012	55	8			73			110													11			00			70	72	74	72
9	F	012	61	8			73			104													14			00			65	70	73	70
10	S	010	61	9			71			101													19			00			66	66	71	67
11	SU	011	61	10			71			101													18			00			62	65	68	66
12	M	011	68	12			70			100													14			00			54	68	62	68
13	TU	012	43	14			69			90													10			00			41	66	49	66
14	W	015	38	11			69			94									069	069			11			00	0	0	65	69	74	69
15	T	011	51	10			70			98													13			00			54	68	64	68
16	F	012	42	10			70			97													14			00			59	68	63	68
17	S	012	52	11			69			98													14			00			57	68	64	68
18	SU	014	48	10			70			103													27			00			54	68	61	68
19	M	012	52	11			68			95													18			00			59	59	73	60
20	TU	016	56	11			70			91													21			00			42	68	48	69
21	W	020	53	11			72			88													15			00	0		21	68	34	68
22	T	011	53	10			70			88													16			00			35	66	53	67
23	F	010	54	10			71			96													22			00			57	68	68	69
24	S	016	44	10			71			98													11			00			51	71	56	71
25	SU	014	40	8			71			101													11			00			48	68	51	69
26	M	010	60	9			71			101													19			00			51	67	61	69
27	TU	010	46	9			70			106													25			00			63	66	67	67
28	W	014	40	8			71			106													32			00	Inc Wk		63	69	65	69
29	T	011	43	8			71			105													30			00			69	71	75	65
30	F	012	53	8			72			112													22			00			79	70	81	62
	S																																
	SU											Inc Wk		Inc Wk		Inc Wk		Inc Wk		Inc Wk							Inc Wk						
	M																																
TOT		377									0		00		0		0		069													
AVE		013	49	10			71												069							00		0				
MIN		010	34	8			68			88	0		00		0		0		069				10			00			21	59	34	60
MAX		020	68	14			73			116	0	0	00	0	0	0	0	0	069	069			32			00	0		79	72	81	72
EXC							0			0		0		0		0		0		0			0				0					

Skippers WWTF

☆ FLOW = Metering Reading Difference X 100 = = MGD

Spec Check on Hach Colormeter is on Falling Run Operational Form

Process

Month 1000000

1ST OF MO PH OF CL2 SAMPLE WITH DPD =

DATE	DAY	FLOW MGD	TEMP	WATER TEMP	PH / S U CT	AT	Comp		D O AT	MG/L	BOD BOD MG/L	WK AVE	BOD KG DAY	WK AVE	TSS TSS MG/L	WK AVE	TSS KG DAY	WK AVE	Ammonia AM MG/L	WK AVE	E-COLI N / CML	Cont CL2 /mg/l CT	ZERO	AT	Comp	Final CL2 / mg/l CT	ZERO	AT	Comp	WK AVE	Back Wash	Init	Aer #1 MLSS	DO	PH	Aer #2 MLSS	DO	PH
	SU																																					
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MAX																																						
EXC																																						

CT = COLLECT TIME
AT = ANALIZE TIME

PH Method Electrometric Method #4500-H Standard Methods 22th Edition Accumet AP110
Cl2 Method DPD Clorimetric Method #4500-Cl G Standard Methods 22th Edition
Dissolved Oxygen Method Membrane Electorde Method #4500-OG Standard Mehtods 22th Edition

Sample Location F Outfall (PH DO De-Cl2
Sample Location Prior to Dechlor Box (Cl2)